Clinical Lectures ON DISEASES OF THE EYE.

Delivered at the Nottingham and Midland Eye Infirmary.

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LECTURE III.

ON SQUINT.

GENTLEMEN,—A short time ago a gentleman holding an important official position in a neighbouring county consulted me on account of failing vision in the left eye. The eye of which he complained occupied its normal position in the orbit, but the right presented exactly the appearance depicted in Fig. 3. I said, "Why don't you have your right eye put straight?" "Because," he replied, "I have during the last twenty years on separate occasions consulted three eminent surgeons, and they each tell me that in order to restore the position of the eyeball it would be necessary to divide the external muscle, and that such division would not only aggravate the existing protrusion, but might even let the eye out of the socket altogether." I explained to him that it would not be necessary to interfere with the external muscle at all, and that so far from increasing the protrusion, the replacement of the eyeball would improve vision and restore his good looks.

FIG. 1.

Before operation.

You have often seen me perform this operation, which admits of rapid execution, and may be undertaken without anæsthetics. I hook up the tendon of the internal rectus muscle and divide all its connexions with the eyeball, pull it well forward, and by two horizontal incisions made with scissors convert it into a narrow strip. I then transfix the base of this strip as far back in the orbit as possible with a large curved needle connected with a thread armed at both ends. Before drawing the thread through I cut off as much of the tendon as may be considered necessary, and with the remaining needle pierce a small portion of the sclerotic about the site of the insertion of the inferior rectus tendon. Having thus obtained complete control of the eyeball, I turn it inwards to any required extent by simply tying the thread. This method of operation is quite as successful in result as any operation can be; it is scarcely more formidable than the ordinary tenotomy for internal squint; the external rectus is untouched, and only one suture is usually required. Here is a patient operated upon some years ago, who attends to-night in order that you may appreciate the permanence of the results attained. He is, as some of you may remember, one of the subjects whose photograph was reproduced in the *Practitioner* of December, 1883. (Figs. 1 and 2.)

Cases of external strabismus vary in degree from mere insufficiency of the internal recti muscles to such aggravated examples as those here depicted, and they all admit of relief by operation. Simple tenotomy of the external rectus will suffice to neutralise insufficiency of the internal recti, but such an operation ought never to be undertaken unless the external rectus is sufficiently strong to overcome a prism of 10°; slighter cases may be relieved by appropriate prisms worn with the base inwards, or by decentred glasses, which have a similar effect. Like myopia—a condition with which it is most frequently associated—the defect may be congenital, or merely a consequence of imperfect vision from any cause; the eye wandering outwards for want of visual guidance. The worst cases are observed in patients suffering from paralysis of the third nerve, or are caused by accident or unskilful operations for internal squint. If the deformity is slight, but still not such as would be relieved by simple tenotomy, I divide the external rectus subconjunctivally and insert a suture just over the tendon of the inferior rectus muscle; having thus secured control of the eyeball, I turn it inwards by attaching the suture to the internal canthus; this forced inversion is maintained for some days, and the external rectus, being compelled to attach itself further back on the eyeball, loses its power of abnormally diverting the globe. In medium cases I divide the internal and external recti muscles subconjunctivally, and secure inversion as before; in this way the internal rectus is brought forward and the external rectus thrown back. The advantage of these latter methods is that

FIG. 2.

After operation.

there is no open wound, no risk, and very little inconvenience to the patient. If the deformity is caused by paralysis of the third nerve, it will usually yield to medicine, volitional exercises, or the electric current; but after ordinary treatment the cure may often be expedited by advancement of the affected muscle, or tenotomy of the antagonist or associate muscle. One of the patients upon whom I am about to operate to-night is a collier suffering from slight squint, the remains of a paralytic affection of the third nerve, which six months ago caused extreme divergence of the right eye. Another who will also need attention is a railway official, whose left eye protrudes and diverges to a frightful extent, owing to laceration and separation of the internal rectus, the result of a malicious thrust with a stick. This is what happens when patients are unskilfully operated on for internal squint: the belly of the muscle is divided, the capsule of Tenon is lacerated, and

the rectus falls back so far in the orbit that it is unable to reattach itself to the globe. Here are two photographs of a patient, before and after treatment, on whom I operated some time ago for extreme divergence occasioned in this way. (Figs. 3 and 4).

To avoid such disastrous results as are depicted in Fig. 3 we must, in operating for internal squint, be careful to divide the tendon only, not to do too much at once, and depend upon tenotomy of the associate muscle for increased effect when necessary. Von Graefe, whose practice I had an opportunity of studying when in Berlin, used, with this end in view, to make an incision directly over the insertion of the internal rectus, expose the tendon, and divide it on a small hook, as shown in Fig. 5. This procedure involves either an open wound or a suture; and in order to obviate the inconvenience attending the insertion and subsequent removal of a thread, I have been in the habit of making an incision directly over the lower border of the internal rectus muscle, inserting a small hook beneath

FIG. 3.

the tendon, causing the extremity of the hook to project beyond its upper border, and cutting on the point, thus dividing the attachment of the tendon under the small bridge of conjunctiva which is allowed to remain; in this way we have a small puncture and counter-puncture, but no open wound, and the tendon, and the tendon only, is divided as readily as though it had been laid bare. If after operation, in spite of all our care, there should appear to be a tendency to eversion, I limit the effect by a suture, catching up the tendon and adjacent tissues, and stitching them to the conjunctiva and subconjunctival tissues at the inner edge of the cornea. When the squint is slight, not more than two lines, you may succeed by operating on one eye only; but the graver varieties, unless when one eye has become completely amblyopic, require the division of both tendons. The first effect of the operation is somewhat diminished when the tendon becomes reattached to the eyeball, and is afterwards, in the course of a few weeks or months, slightly increased, owing to the action of the opponent muscle, which is now enabled to exert a greater influence upon the globe, so that a slight residual convergence will often disappear. This desirable end is much more certainly attained by the use of spectacles, which correct any error of refraction. If, on the other hand, we find that the ultimate result is a tendency to eversion, this malposition may be corrected by withholding glasses, so that the necessity for convergence accompanying increased accommodation may help to restore parallelism of the globes. If in the course of time we find that, in spite of all that has been done, one or both eyes are turned slightly outwards, they may readily be put straight by simply dividing both external recti muscles subconjunctivally.

Here is a small boy, six years of age, on whom you shall see me operate by tenotomy of the internal rectus in the way to be presently described. He is suffering from the most common form of squint—strabismus convergens concomitans. His mother thinks he caught the affection from a playmate, but he really began to squint two years ago, because he then began to learn to read; such patients squint as soon as the eyes are used for near objects, and the more they are thus used the worse does the defect become. You will notice in this case that the child shows a slight tendency to turn the left eye inwards at times, but the right is much the worst; and we have ascertained that the sight of this eye is the weaker of the two, although he can still decipher large print with it. I have ascertained, by making a dot upon the lower lid exactly in the middle and another in continuation with a vertical line drawn through the centre of the right cornea in its abnormal position, that the extent of the deviation is exactly three and a half lines. If I now close the left eye and direct the patient to look straight with the squinting one, it assumes its normal position; but on raising my hand we find that the left eye has become the squinting one, and, moreover, that the extent of the deviation is exactly the same as that of the right eye. It is as though the two eyes were connected by a cord

FIG. 4.

that was too short to permit them both to look straight at once, and that whatever was taken on one side had to be given from the other. This is what is meant by "concomitant"—that is, the straightening of the squinting eye is accompanied by the squinting of the other; and the fact that the patient squints first with one eye and then with the other also brings the case under the definition of "alternating." The deviation of the right or squinting eye is

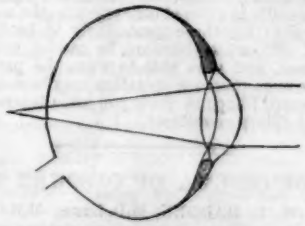
FIG. 5.

called the primary deviation; the deviation of the left or sound eye when covered, the secondary deviation. The primary and secondary deviations always correspond exactly in cases of concomitant squint; and it is essential to note this, because when the squint is due to paralysis the secondary deviation greatly exceeds the primary.

Here is a case of squint from paralysis of the external

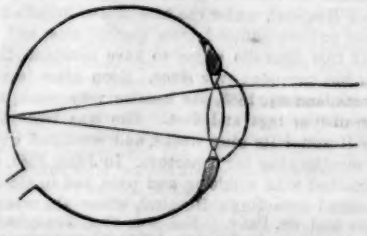
rectus muscle of the left eye; the patient is a gentleman's servant, who is terribly embarrassed when called upon to pour out wine, because he cannot distinguish the true from the false image of the glass. Note, now, if I direct him to follow my finger with the squinting eye he moves it slightly, but cannot force it outwards, while the great effort he makes in this direction causes him to squint inwards much more with the right eye than he did before with the left. To appreciate the value of this symptom, you must remember

FIG. 6.



that you cannot turn the left eye outwards without at the same time turning the right eye inwards—they are associated actions; and when this patient makes an effort to turn his paralysed eye outwards, although he cannot effect his object, he is at the same time doing his utmost to turn the right eye inwards; hence the effect, although *nil*, or nearly so, on the paralysed external rectus of the left eye is greatly in excess on the healthy internal rectus of the right. This distinguishes cases of paralysis from cases of concomitant

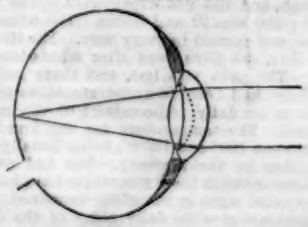
FIG. 7.



squint, and you will notice a similar association of symptoms in patients suffering from uncomplicated paralysis of the superior rectus, where, owing to the connexion of the central nerve ganglia of the superior rectus and levator palpebræ, the effort to look upwards raises the lid of the paralysed eye out of all proportion to its fellow.

Why should so many children begin to squint when they first begin to read, or write, or sew? Simply because they cannot see unless they do. Their eyes are too short in the

FIG. 8.



long axis—that is, from before backwards. The refraction is too low, and objects, instead of being focussed upon the retina, are depicted upon a spot a little beyond it; hence the patient makes extraordinary efforts to lengthen his eye, or increase its refraction, so as to bring the picture into its proper place. You will understand this at once if you compare the accompanying outline of the short eyeball (Fig. 6) with its fellow of the normal eye (Fig. 7). You may say, "What has this to do with squint? Squinting will not alter the shape of the eyeball." No, but it has a similar effect, as I will now explain. Patients whose eyeballs are too short are said to suffer from hypermetropia; they are obliged to exert a certain amount of accommodation—that is, render the lens optically stronger by increasing the curvature of its anterior surface by the active exercise of the ciliary muscle, even when looking at distant objects, an effort that is not at all required of the normal eye. Rays of light proceeding from objects twenty feet distant are parallel or nearly so, and, in an eyeball of ordinary dimensions, are brought to a focus on the retina by the power of refraction of the cornea and lens alone when the eye is at perfect rest, and without any exertion of the ciliary muscle. (See Fig. 7.) In hypermetropic persons it is necessary that the convexity of the lens should be increased before these parallel rays can be brought to a point as indicated by the dotted lines in Fig. 8, where the hypermetropic eyeball is seen successfully bringing parallel rays of light to a focus on the retina by increasing the curvature of the anterior surface of the lens, an effort which, in an eye of ordinary dimensions, is only required for the divergent rays which emanate from near objects. Now, if the hypermetrope is obliged to accommodate for distant objects, the rays from which are parallel, you can readily understand that considerable exertion is required in order to enable him to focus near objects, the rays from which are divergent; and this excessive effort of accommodation involves a squint, because the power of accommodation is greatly increased by convergence of the optic axes. Why, therefore, do we not cure squint by neutralising the hypermetropia with a suitable convex glass? A most rational suggestion; and no doubt great good may be effected in this way, as well as by paralysing accommodation with atropine. But, in point of fact, these patients do not come to us, as a rule, until they have squinted for some time; often they only do so because their lives have been rendered miserable by the scoffs and jeers of their schoolfellows and playmates. Prolonged treatment with spectacles constantly worn, and which only mitigate the defect, still subjects them to remark—indeed, tends to aggravate rather than diminish this serious evil, and consequently offers no attraction either to our patients or their friends. Moreover, it is dangerous for little children to wear spectacles out of doors or when at play; they are so apt to be injured by fracture of the glass, and, strange as it may appear, after they have squinted for some time they won't leave off, even though you give them glasses so strong that the squint, far from assisting, actually disturbs vision.

If a squint is neglected, as time goes on one eye becomes permanently the squinting one; it is definitely excluded from the act of vision, and from that moment sight begins to fail. First excentric portions of the retina lose their sensibility, then the yellow spot, and lastly the inner portion fails likewise. If you push one of your eyes ever so little on one side you immediately see double; there is a true image and a false image, and the deterioration of sight which takes place in squint-eyed persons is simply due to the constant negation of the pseudo image of the squinting eye by the brain. We only see what we look at; we only hear what we listen to; the brain has a horror of double images, and the persistent exercise of this mental act of suppression causes in time loss of function, amblyopia from exclusion, or exanopsia, as it is termed. As the patient ceases to see, so does the eye cease to be affected by efforts at convergence, but wanders to and fro in a purposeless sort of way, and is thus in occasional accord with its fellow; hence the friends, ignorant of the fact that growing out of a squint means growing blind in one eye, congratulate themselves, and become dubious as to the necessity for operation. When a squint alternates, sight may be restored and the deformity cured perfectly. When it has become monolateral the squint may be cured and the sight greatly improved if we see the patient within a reasonable time, but in advanced cases the chances of restoration to sigh are greatly diminished; hence operation should not be unduly delayed, or if delayed from any unavoidable cause the eyes should be alternately exercised, so as to counteract loss of function from disuse. If the squint is very slight, it may be necessary only to operate on one eye; but in the great majority of cases, unless when one eye has become completely amblyopic, it will be necessary to divide the tendons of both internal recti. In the case of the boy patient on whom I am about to operate, we noticed that the eye, which was closed, whether right or left, became for the nonce the squinting one. Now, when both eyes are closed as in sleep, or, as you will be able to see, during anæsthesia, both squint, and the primary deviation, limited during

waking moments to one eye, becomes equally divided between the two, as in Fig. 9. Here is clear evidence of the binocular nature of squint, and you can readily understand that in the majority of cases it will be necessary to operate upon both eyes. The exigencies of practice and the convenience of the patients frequently necessitate a double operation at one *séance*. It is well, however, when it can be so arranged, to operate upon one eye only at a time. Cases where the eyes are equally convergent when in use are extremely rare, but I can show you a patient who habitually squints inwards with both eyes, exactly as represented in the sketch. (Fig. 9.) In fact she is very myopic, and has never worn glasses; hence the externi, which produce approximate parallelism of the optic axis required for distant vision, have never been exercised, while the interni have been equally and abnormally developed by constant convergence for near objects.

Some patients squint simply because they have a scar upon the cornea; in these cases a shadow is thrown upon the retina by the interposition of an opaque film, and the patient turns his eye so as to reduce the annoyance thereby occasioned by throwing it upon the least sensitive portion of the retina. In such cases it is often necessary to shift the pupil and tattoo the cornea as well as divide the rectus tendon. As before remarked, cases of squint, whether external or internal, which are due to paralysis of the third or fourth nerves, usually yield to medicine and treatment adapted to remove the cause, which may be of rheumatic, syphilitic, or diphtheritic origin, or may depend upon defective nutrition of nerve centres arising from various causes. These cases usually occur suddenly in adults or persons past middle life, increase rapidly, and are accompanied by distressing giddiness, which disappears when the affected eye is closed, and is mitigated, but does not wholly disappear

FIG. 9.

when the healthy eye is closed. Contrary to what you would *a priori* expect, a slight squint of recent origin is much more embarrassing to the patient than the graver varieties of the same affection. This is due to the fact that the nearer to the yellow spot on the retina, the more definite does the image of the squinting eye become, and the more difficult it is for the patient to distinguish the true from the false image, thus leading, as in the case of the gentleman's servant we have just seen, to serious error with regard to the position of objects.

The cause of paralytic squint may be central, such as disease of the spinal cord or brain; or it may be peripheral, arising from inflammation of the nerve sheath or pressure from tumour, gumma, or periosteal thickening, or even shock from cold. Facial paralysis, as you know, is often due to the latter cause, and the ocular nerves are occasionally affected in the same way. If the disease is of central origin the loss of power is usually only partial, more than one nerve is affected, and you will find that it is impossible to fuse the true and false images by means of prisms. Complete failure of any one of the nerves supplying the orbital muscles, unaccompanied by other symptoms of paralysis, may be confidently ascribed to some lesion of the trunk of the nerve itself at the base of the skull or in the orbit, and may thus be distinguished from the graver varieties of central origin. In treating these cases, you will find large doses of iodide of potassium, with mild mercurials, most serviceable in one class of patients; change of air, tonics, and general hygiene in the other. Strychnine, internally and hypodermically, with the local application of the induced or voltaic electric currents, are applicable to both; and whenever the paralysed muscle responds to the stimulus, however slightly, you may confidently predict a successful issue to the case.

Practice and attention to the rules I have laid down will enable you to command brilliant results in cases of squint. We have operated upon thousands of patients at this institution. It is a rule that each shall return within a few months, so that we may note the ultimate result. One easily forgets faces in a large practice, and it frequently happens, as you know, that I fail to recognise my friends, so completely has the deformity been removed. I must warn you, however, that this desirable end cannot always be attained by one operation; indeed, the most strikingly successful immediate results in cases of convergence (the most common form of squint) are those most likely to be followed by divergence. We must, therefore, be careful not to do too much at once, and it is well to warn the patient or his friends that more than one operation may be necessary. At the next lecture I hope to show you some interesting cases of optic and ciliary neurotomy.

CASES OF ŒDEMA OF OBSCURE ORIGIN.[1]

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S. S——, aged twenty-four, a dressmaker, was admitted under my care into the Royal Hospital for Children and Women on Nov. 3rd, 1884. There was a very marked history of phthisis in the family. The patient stated that she had suffered from vomiting and headache occasionally since childhood, but during the last four years she had become much worse. In October, 1882, she was an in-patient of St. Mary's Hospital, under the care of Dr. Broadbent. She was stated to have suffered from gastric ulcer and peritonitis. At this time she began to have constant diarrhœa, and this has persisted ever since. Soon after leaving the hospital in January, 1883, she became very weak, and had swelling of the legs and feet. She was treated at the Reading Hospital for nine weeks, and remained quite well for two months after her departure. In June, 1883, she was again attacked with vomiting and pain, and in October she was admitted into Guy's Hospital, where she was seen by Dr. Wilks and Dr. Pavy. She was then thought to have acute peritonitis. In January, 1884, she was admitted into the Beckenham Hospital for another attack of supposed peritonitis, and since then she has had several short bouts of similar nature. A month before she came under my notice she caught cold, and has had a cough since. On admission she complained of pain in the epigastrium and right iliac region, and of extreme weakness. She was very thin, apparently emaciated. The skin everywhere was hot, dry, and very scurfy. Both legs were œdematous, the left more than the right. There were the signs of bronchitis all over the chest, but no evidence of consolidation. She had little cough, and did not expectorate. The heart was normal. The pulse was 92 and feeble. The urine was free from albumen, and normal in every way. The liver seemed natural. On Nov. 8th (five days after admission) she was much better. The pain was less, and there had been no vomiting. There had been frequent stools, sometimes as many as eight or ten daily. The œdema of the lower limbs had disappeared. The temperature for the first four days had varied between 100° and 103·8°, being usually higher in the evening than in the morning. She had sweated at night, and on one occasion there was said to have been a slight rigor. The physical signs in the chest remained as on admission. I need not give the daily notes of the case. The temperature was very variable, sometimes reaching only 100° at night, sometimes rising to 102° or 103°, and occasionally remaining normal. The night sweats continued, and at times she had slight shivering attacks. The tongue was very red. The stools were still frequent, but not so frequent as at first; they were pale, formed, and small. The tendency to frequent defecation was controlled by compound kino powder, ten grains twice a day. She had only

[1] Read before the West Kent Medico-Chirurgical Society, March 5th, 1886.

vomited twice during her stay in the hospital, once after a dose of cod-liver oil. The catamenia, which had been absent for more than a year, appeared once. In short, when she was discharged at the beginning of 1885 she was practically well.

And now I must give the patient's subsequent history. In May, 1885, she came under Dr. S. Coupland's care at the Middlesex Hospital. She again had the signs of bronchitis, the legs were œdematous, she vomited at intervals, usually after food, and the stools were frequent. The pulse was noted as being feeble and compressible. The urine was examined several times, and always found free from albumen. The temperature, again, showed an irregular tendency. She made considerable improvement; but I gather from the clinical notes which were kindly lent to me by Dr. Pasteur, the medical registrar, that there was still slight œdema of the legs and some bronchitis when she left the hospital. In October, 1885, I received a letter from my friend Mr. Lunn, the resident medical officer at the St. Marylebone Infirmary. He asked me to come to see a case which might possibly be one of myxœdema. I found that the woman was my old patient. Her aspect had undergone a very remarkable change. Both upper and lower eyelids were very much swollen, so swollen that she was unable to see me; otherwise there was no puffiness of the face. I must observe that Dr. Coupland's notes state that the patient had noticed swelling around the eyes in the morning for nine months. But there was certainly no puffiness when she was under my care, and I found no reference to its existence in the Middlesex notes. In addition to the swelling of the eyelids, the legs were œdematous, and there were the signs of bronchitis. I could detect nothing wrong with the thyroid gland. There was no evidence of obstruction of the veins of the lower limbs. On the whole, I thought that the case was not one of myxœdema, but, on the other hand, was not prepared to give anything like a positive opinion. She remained at the St. Marylebone Infirmary from June 17th until her death on Oct. 27th, 1885. During this time she suffered a good deal from abdominal pain, vomiting, and diarrhœa. The urine was repeatedly examined, but never contained albumen. The average daily quantity was said to have been only fourteen ounces, but probably a considerable quantity was passed in addition during her frequent defecations. On Oct. 20th the œdema had entirely disappeared, but the abdominal pain persisted, and the stools were passed at frequent intervals. She died rather suddenly on Oct. 27th.

I was unable to be present at the post-mortem examination, but Dr. Coupland attended. The heart, liver, spleen, kidneys, uterus, and brain were normal. The thyroid gland was said to be small, but apparently not otherwise affected. The lungs were large, emphysematous, and œdematous, but there was no sign of consolidation. The omentum was large and fatty. The mesenteric glands were enlarged, and several were suppurating. Three annular strictures were found in the jejunum at intervals of four inches, and one of these was plugged by a plum-stone. Unfortunately, I cannot report on the condition of the blood and vessels, the exact state of the thyroid body, and the precise nature of the intestinal strictures. I am, however, informed by Dr. Coupland that the real nature of the disease was not made clear to his mind by the post-mortem examination. I cannot connect in any reasonable way the œdema of the lower limbs and face with the state of things found after death. It is true that the œdema of the legs might be due to the bronchitis, although my own belief, after a careful study of the case, is that such an explanation is insufficient. The puzzling factor is in the later history of the patient. The swelling of the eyelids suggested renal disease; but, as I have already observed, neither clinical nor pathological evidence lend the slightest warrant to this hypothesis. It would be impossible, too, from the facts which I have given, to look upon the condition as one of myxœdema or the cretinoid state; indeed, I am prepared with no explanation. The enlargement and apparent inflammation of the mesenteric glands, and the strictures of the small intestine are, of course, a sufficient and reasonable cause for the abdominal pain and the frequent defecation. But it is difficult to connect the œdema with these lesions, and it is highly probable that there was no other relation between them than that of mere coexistence. The occurrence of transitory œdema is not unfrequent in the initial stages of myxœdema. The swelling may affect face, limbs, or trunk, and may supervene more than once before the characteristic features of the disease are exhibited. It is well, therefore, to bear in mind the possible significance of some of these fugitive œdemas of obscure origin.

In talking over this subject recently with Dr. Bristowe, he reminded me of the case of one of the present house-physicians at St. Thomas's Hospital. This gentleman, who gives me permission to allude to his case, informs me that about two years ago he suffered from œdema of the upper and lower eyelids on the right side. At this time he was in his usual condition of health, which, however, is never very robust in London. The urine was constantly examined for albumen, but none was ever found. He was seen by Mr. Nettleship, who suggested some periostitis as a possible cause. But this was abandoned as untenable, as there was an entire absence of pain, heat, or thickening of the surface of the bone. There was no sign of enlargement of the superficial veins. In fact, the case was one of passive œdema, and its cause still remains unascertained. In two weeks the swelling disappeared, much to the satisfaction of my friend, who was not unnaturally somewhat alarmed. He tells me that his eyelids have always been slightly full, and at the present time they are certainly a little puffy. During the last two years I remember a few cases of œdema of unusual distribution, the cause of which was not clear. One was a child, fifteen months old, the subject of slight rickets, who had œdema of the right foot and the left hand. Another was an infant of the same age, who had œdema of both legs; but the friends stated that during the four weeks preceding admission there had been occasional swelling of arms and hands. In both these instances the origin of the dropsy remained undiscovered.

The case which I shall now give proved fatal, but the post-mortem examination only partially explained the clinical facts. The patient was a woman aged twenty-eight, who came under my care at the Royal Hospital for Children and Women on Jan. 12th, 1886. The only point to note in the family history was that her mother died of phthisis. The patient had been married four years, but had never been pregnant. She had always been delicate, though she had suffered from no definite illness since measles in childhood. The catamenia had been absent for the three months preceding admission. She had been troubled with cough in the winter, and of late the cough had become more severe. During the last six months there had been pain and swelling of the legs, and she had become weak and thin. On admission she was seen to be fairly nourished, and the lips were of a good red colour. The cheeks were swollen and puffy, but the eyelids were not affected. The hands were cold and the skin on the dorsum mottled. The abdominal and thoracic walls were œdematous, and there was marked dropsy of the legs and feet. There were sonorous and sibilant rhonchi over both lungs. The left apex, both front and back, was dull, and crepitations were audible. The respiration was cavernous, the voice sounds increased, and pectoriloquy was present. In fact, the existence of a cavity was diagnosed, and the post-mortem examination showed that this was so. The heart was normal. The pulse was 128, regular, and very feeble. The liver was evidently enlarged, the edge being felt three inches below the ribs. No ascites was made out. The tongue was furred, the appetite bad, the bowels regular. The specific gravity of the urine was 1025; it was acid, and contained no albumen. No alteration in the size of the thyroid gland could be detected. The temperature varied between 99·6° and 101°. On Jan. 19th (one week after admission) I noted that the whole left upper extremity was œdematous, pitting on pressure. This had been noticed the day previously by the house-surgeon. The right forearm and the lower part of the arm were also œdematous, but were not so when the resident surgeon had made his morning visit two or three hours previously. There was no enlargement or tenderness of veins anywhere, and no sign of mediastinal growth or aneurysm. The feet and legs were now only slightly œdematous. During the night she had had diarrhœa, the stools being loose and offensive. During this first week the patient had been treated with stimulants, such as brandy and ammonia.

Jan. 21st: The œdema of the right arm has disappeared, but around the left elbow it is more marked. She has been slightly delirious during the night. No headache. Feet and legs remain as before, slightly œdematous.—23rd: The œdema of the right upper extremity has returned, the lower half of the arm and the upper half of the forearm being affected.

The œdema in the left side has increased somewhat, and extended a little further down the forearm than on the opposite side. The backs of both hands are absolutely free from œdema. There is no fulness of veins, no tenderness, and no swelling of face; some œdema of lower half of back. The diarrhœa has been controlled by occasional doses of chalk mixture. The pulse is 112, and still very feeble. The urine, after repeated examinations, was found to be free from albumen.—25th: The œdema of the left upper extremity has extended to the dorsum of the hand. The right arm is now but slightly affected. There is some swelling and pitting of the right side of the neck.—26th: The œdema of the neck has nearly disappeared. She passes her evacuations into the bed. Is taking a tablespoonful of cod-liver oil twice daily, in addition to the ammonia mixture.—30th, 11.30 A.M.: No œdema of arms or legs, but some of back and abdominal walls. 1 P.M. (an hour and a half later): There is now moderate œdema of upper half of forearms.—Feb. 2nd: Slept fairly in the night, but was delirious in the morning. Suddenly became collapsed while having her bed made. She does not seem to understand when spoken to. She is very pale, and the eyes are half closed. Pulse 140, very feeble. Had a general convulsive fit shortly after midday. No œdema anywhere.—3rd: The coma has increased, and she cannot be roused. Had several convulsions during the night. She died at 9.45 P.M., after a series of epileptiform attacks.

Necropsy, seventeen hours after death.—No œdema of extremities. Hair in axillæ and on pubes very scanty. Thyroid gland healthy. Two pints of serous fluid in left pleura, and firm adhesions at apex. Right pleura healthy. Three or four ounces of serous fluid in pericardium, and two pints in abdomen. The upper lobe of the left lung showed rather extensive broncho-pneumonic and tubercular consolidation. There was only one cavity, and that was situated at the extreme apex close to the posterior border. It was well defined, measured an inch from above downwards (its long diameter), and contained pus. The lower lobe was quite collapsed, and there were a few caseous masses, averaging the size of a pea, scattered through it. There were some broncho-pneumonic patches at the extreme apex of the right lung, but no cavity. The bronchi contained pus. The bronchial glands on the left side were very caseous. The right side of the heart was dilated, but the organ was otherwise natural. The blood was everywhere fluid, except for a small amount of clot in the right side of the heart. The vessels, both arteries and veins, were healthy. The main veins of both upper and lower extremities contained fluid blood only. There was no obstruction. The liver was large and fatty. The spleen a little enlarged. The kidneys were somewhat increased in size, and heavier and firmer than natural. The capsule stripped readily, and the convex surface was smooth; the cortex was dull red, but otherwise natural. There was some early tubercular ulceration on the lower part of the ileum, and there were two or three calcareous mesenteric glands. The os uteri was small, and each Fallopian tube showed a constriction about its middle, the inner half being much narrower than the outer half. There was a moderate amount of fluid in the ventricles of the brain, otherwise the organ was healthy.

There are some points in the clinical history of this case which require special notice. The patient throughout was extremely feeble, and her weakness seemed to me to be quite out of proportion to the amount of lung mischief. The urine was frequently examined for albumen, and on only one occasion was it present, and then there was only a trace. The temperature exhibited as a rule an evening exacerbation, and, in fact, had the features so often seen in phthisis. I made careful inquiries as to whether the position of the patient had any influence over the curious distribution of the œdema, but the nurses were confident that such was not the case. The fluidity of the blood found after death may possibly explain some of the peculiarities of the dropsy in this patient; but I confess I cannot readily account for its occasional fugitive character; nor, indeed, is it easy to understand why the œdema should affect part of the arm and forearm—for example, leaving the back of the hand free. I am not aware that much has been written on the subject, which I have brought forward in rather a disconnected way. I have preferred to record facts, and to say little by way of explanation, for I trust that others may, from their ripe experience, be able to throw some light on this obscure class of cases.

ON THE NATURE OF SCROFULOUS GLANDS IN THE NECK AND THEIR SURGICAL TREATMENT.

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(*Concluded from page 1156.*)

MY excuse for having gone at some length, and yet as briefly as I could, into the pathological aspect of the subject, must be that upon our view of the question in this light the further question of surgical treatment is based; and also that in most of the works in our own language the tubercular nature of the disease is not recognised sufficiently. In support of this assertion I will quote a few passages from some of the more recent surgical works which deal specially with the subject of scrofula and tubercle. In the first volume of Ashhurst's "International Encyclopædia of Surgery," p. 242, in the article on Scrofula and Tubercle, written by Mr. Butlin, and published in 1882, he thus speaks of the morbid anatomy of scrofula: "There is not in scrofula, as in tubercle, a pathological body, either microscopical or of larger size, peculiar to the disease. All the changes are those of inflammation; but the products of scrofulous inflammations may be analysed, chemically and histologically, without the discovery of any substance or structure which may not equally occur in any, or indeed in every, inflammation." This was no doubt written immediately before Koch's address before the Physiological Society of Berlin, but it does not even represent the position of the question as it stood for several years prior to the discovery of the bacillus. The identity of the two diseases had been fully recognised by leading pathologists, as I have endeavoured to show; the only question waiting for solution being "What is tubercle?" Again, in Mr. Treves' work on "Scrofula and its Gland Diseases," published also in 1882, p. 20, after giving the evidence for and against the identity of these diseases, he proceeds to discuss the value of the inoculation experiments, especially with respect to the conclusions drawn from them by M. Villemin. He then makes almost a pathetic appeal in favour of scrofula and its future distinctive existence. He says: "But even now some pathologists still advance the opinion (which I give in the words of M. Villemin) that 'tubercle alone gives tubercle by inoculation.' Those who retain this view are compelled to exclude from scrofula all its classical features: the caseous gland, the cold abscess, osteitis, periostitis, and 'white swellings'; and all that they can leave for the disease are a few superficial lesions, the products of which will in time be probably found to be inoculable, and then, for M. Villemin and his followers, scrofula will be an extinct disease." Well, terrible as the alternative is, we must face it; and as we must now hold that "tubercle alone gives tubercle," and that, as the bacilli from scrofulous lymphatic glands, when inoculated, give rise to tubercle, we must also hold that scrofulous lymphatic glands are tubercular; Mr. Treves will have to accept his alternative and acknowledge that scrofula as a distinct disease has ceased to exist. Let me cite another extract, one from Dr. Clifford Allbutt's lecture on "Scrofulous Neck," as it illustrates the dawn of the tubercular aspect of the disease in these countries. He says in his lecture published last year, p. 12: "Our knowledge of the tubercle bacillus is as yet too young to tell us whether scrofulous neck always depends upon the introduction of the tubercle bacillus by way of the mucous membrane of the throat or otherwise—too young, indeed, even to tell us whether the tubercle bacillus is an essential part of scrofulous neck at all. We know that it may be found there, and that scrofulous neck has of late years been regarded as morphologically tubercle, so that we are safe at least on the broad postulate that inoculation from sources of corrupt or caseating pus does very commonly set up a more or less generalised tuberculosis." I do not wish to assert that every enlargement of the cervical lymphatic glands is tubercular. We eliminate in this discussion those forms of adenitis which are associated with various infectious and simple inflammatory processes; we omit the so-called rheumatic bubo which appears in otherwise perfectly healthy individuals, without discoverable cause, most frequently in the axillary and inguinal glands, and which often terminates in suppuration.

In fact, only those affections of the gland are here discussed to which the term scrofulous is usually applied, and these, we assert, are due to the specific action in them of the tubercle bacillus. The diagnosis in the early stage is extremely difficult, indeed sometimes impossible, between the tubercularly infected gland and the simple form of adenitis which results from some local irritation. Thus the glands in the neck may enlarge from the irritation caused by a carious tooth, or an attack of tonsillitis, or a simple cold. But as the irritating cause disappears the swollen gland will subside, though sometimes it takes a long time to do so. But in the tubercular gland it is quite otherwise. The irritating cause may disappear or have been so slight as to escape notice, but the infected gland remains stationary for a time or continues to enlarge, and presently we find other glands following in its wake, and enlarging too. In the early stage our only means of diagnosis is to wait, and what was at first obscure will soon be cleared up by the future progress of the case.

Now, to understand the process of infection in the cases referred to, we must for a moment look at some of the characteristics of the bacillus itself. It cannot develop in a temperature below 86° or above 106°; therefore, outside an animal body it cannot grow in this climate. Inside the body it grows and multiplies. A bacillus takes a month to reach its fullest development. It multiplies by fission, and by the formation of spores. These spores are much more resistant than the bacillus itself. Drying the bacilli or the spores does not destroy them. It is not therefore difficult to understand how easily the infection may spread. The sputa of phthisical patients, for example, swarm with them. When these sputa dry, the bacilli and their spores, in a dry but active state, are scattered far and wide in the air, and may come in contact with a suitable soil whereon to develop. An ordinary healthy individual does not present this soil. The bacilli may be inhaled into his lungs, may be swallowed with his food or mixed up in his saliva, they may even lodge on some abraded mucous surface, and yet may do no harm. The antiseptic power of healthy living tissue is fully recognised. But there is undoubtedly some defect of constitution, some "vulnerability" of the tissues which we do not understand, which furnishes a fruitful soil. Call scrofula, if you will, the peculiarity of the soil on which the bacillus grows; but the seed itself and its growth, and the manifestations of its development, let us call tubercle. We shall thus have clear ideas, at least, as to what we mean; we shall not continue to confound together the soil, and the seed which grows on it. Now, look at the behaviour of the bacillus when once it finds a local habitation congenial to it. As I have said, a bacillus requires nearly a month for its full development, and shows hardly any signs of growth under a week or ten days. During this period they may be cast off in the bronchi by the action of the cilia; in other regions they may be expelled with the secretion of the part. But suppose they gain an entrance though some abraded part—they are taken up by the lymphatic vessels and carried to a neighbouring gland, or they may develop in the tissue where first they found a resting-place. In the case of the glands in the neck, we can generally trace the history back to some such local infection. Thus a child suffers from eczema of the head, and the child is of a delicate constitution; we are told it is scrofulous. Or the child has a purulent otorrhœa or ulcers in the mouth, or it suffers from a discharge from the nose. Later on, a gland in the neck, usually only on one side, enlarges. Or a young adult, and sometimes even one more advanced in life, suffers from a cold, from an attack of tonsillitis, or from enlarged, sometimes caseating, follicles in the pharynx (and I have not infrequently traced it to this cause); and even after this ailment has subsided, and is perhaps forgotten, a gland, or more, begins to swell. Long after the exciting cause has ceased to act, the gland either remains *in statu quo*, hard, nodulated, movable; or it may develop rapidly all the series of phenomena which are known as scrofulous. Other glands enlarge, and frequently we find all the glands on one or on both sides of the neck sharing in the process. This whole series of events are explained by what we know of the behaviour of the tubercle bacillus. By some such channel as I have mentioned the bacillus enters; it is taken up in the lymph streams, and is arrested by the first lymphatic gland it meets. In such cases too much importance cannot be attributed to the functions of the lymphatic glands. They act as defensive outposts, as filters to free the lymph of infective and deleterious matters which it may contain, but in doing so they themselves suffer. In process of time the bacillus grows within them, multiplies, and gives rise to the formation of true tubercle. These tubercles become yellow in the centre, they coalesce, and in process of time form a caseous mass. At this period one of three things may happen—in other words, the gland may follow one of the proverbial "three courses." First, it may get well, though this is not a frequent result. Secondly, it may suppurate,[1] make its way to the surface, and discharge its contents, and this may end in cure. Or, thirdly, it may extend, infecting gland after gland. Even here, too, nature may accomplish a cure by a slow process of successive suppuration, which may eventually eliminate the disease. But should nature fail to do so, the last gland between the bacilli and the general circulation may become infected, the last outwork of defence may be carried, and then the whole system is exposed to general infection, and a more or less acute general tuberculosis results. But what is to determine which of these three courses shall be followed? It seems to depend on one or other of two factors: firstly, on the number of the bacilli which have gained access to the gland; secondly, on the constitution of the patient. Koch has shown that it is of the greatest significance whether the infection be produced by a few bacilli or by a large number. In his inoculation experiments, he found that a large number of bacilli, after first producing a diffuse caseous infiltration, both at the site of injection and in the neighbouring glands, gave rise rapidly to general tuberculosis. If the number of bacilli introduced were smaller, the length of time which preceded general infection became longer; and when the bacilli were few, this period might be very long, or in some cases generalisation might not occur at all. In spontaneous tubercular infection in man the dose is usually small, though sometimes it is often repeated; and hence it is that in tuberculosis of the glands in the neck general infection of the system most frequently does not occur. The constitutional condition of the patient plays a part only second to the strength of the dose received. I have already alluded to the fact, recognised by all, that a certain state of the system, a certain constitutional susceptibility, is necessary, in order that an individual may contract tubercular disease—that is, that every person does not offer a suitable soil for the growth of the bacillus. What is equally true is that persons may possess this vulnerability in different degrees, and, moreover, that the same person does not afford at all times the same suitability of soil. Clinical experience has taught us this over and over again, and upon these axioms are based all our constitutional methods of treatment, the importance of which in every case cannot be over-estimated. In every case, whether we adopt surgical measures or not, we should aim at so improving the health of the patient by those means, which it is not within the scope of this paper to discuss, that to the best of our ability we shall put him into a condition to contest successfully with his unseen foes.

Taking, now, these two factors, we see that even when a gland has become infected we may hope for spontaneous resolution, provided that the infecting dose has been small, and provided that the patient's constitution has so improved that the gland tissue is healthy enough to cope with the bacillus. Now what do we observed in such a case? The bacilli gradually disappear from the caseous mass, and may not be finally found at all, and the broken-down tissue may be absorbed, or it may calcify, and recovery ensue. This is unfortunately a rare occurrence. But supposing these factors are not sufficiently strong to bring about such a desirable end, the patient may eliminate the disease by a process of suppuration. The caseous masses in the gland—and they are usually multiple—begin to show evidence in the centre of suppuration. This may go on to a considerable extent before any external symptoms of suppuration appear. So that because a gland is hard and movable, and is not tender to touch, we cannot assume that that gland does not contain many central abscesses of small size. Gradually these abscesses coalesce; the gland becomes tender; it enlarges more and more; inflammation extends to its capsule and to the neighbouring parts, and soon adhesions form. By slow degrees the skin over it becomes involved; it becomes firmly adherent; it thins; the abscess opens and discharges, and a sinus is left, which may, and generally does, keep open for weeks or months, discharging a thin pus

[1] This suppuration is not a necessary result of caseation, but is probably due to the entrance of some form of micrococcus by the same or some other channel as that by which the bacillus entered.

with cheesy matter contained in it; and when it heals it leaves behind it an ugly and disfiguring and puckered scar. But, even so, the patient is well quit of his disease. More frequently, however, the bacillus has made its way into neighbouring glands. One by one these enlarge, and the same slow process of suppuration begins; another sinus forms through unhealthy purplish skin, and another scar is left; and the cycle is repeated till the whole neck is seamed and unsightly. Is not this a true picture of the disease, and one with which we are too commonly familiar? If more were needed to paint it in its true colours, let me give it in the eloquent words of Dr. Clifford Allbutt: "That the ugly finger of scrofula should be laid chiefly upon children, young men, and maidens, has this pathos in it, that it disfigures them at the spring-time of life—at that time when hope and promise make all life precious, and all death seem the loss of untold treasure; when beauty and gaiety have their fleeting day, and for the loss of them the world is poorer."

But even while this local process of decay is going on the general system is not safe from its ravages. As long as these caseous masses of tubercle exist in the body, so long must we ever bear in mind that the danger of generalisation is possible. But even if we were sure that by repeated and prolonged suppurations the danger of extension were removed and the bacilli expelled, the scarring of the neck is not the least consequence which may follow. Remember that this disease would never have originated but for a peculiar constitutional susceptibility. Will that susceptibility be diminished by months or years of suffering? Will it not rather be enormously increased? During this period "septic matters are absorbed into the blood, recurrent and variable hectics dissipate the appetite, flesh, and strength, so that the patient finds himself at the end of it all, if not unsound in his internal organs, at any rate a far worse man than he would have been had this trial been spared him."[2] Let him become again exposed to tubercular infection, let him breathe impure air impregnated with tubercular poison, and who shall say that he will escape with healthy lungs? It is believed by some that in subjects predisposed to scrofula the involvement of the glands in youth affords them some sort of protection against phthisis subsequently. But this view cannot be upheld. Only the other day a girl came into hospital with extensive disease of both lungs, and her neck was seamed with old scrofulous scars. The worst case of tuberculous glands in the neck I ever saw was in a girl who died of phthisis.

Such then, being the nature of these so-called scrofulous glands, and such the consequences which we have to face, I think I am justified in asserting that the time has come, when the treatment of this disease, except in its earliest stage perhaps, should pass from the domain of the physician, and should be entrusted to the surgeon. In the earlier stage, while still the diagnosis remains uncertain, the treatment is one of expectancy, tempered by constitutional measures. But when once the diagnosis is assured, and there is no evidence that resolution is likely to take place, bearing in mind the nature of the disease we have to deal with, and the consequences which may follow from waiting too long, I am strongly convinced that the surgeon's art should intervene to assist Nature, and to do that quickly, which unassisted she would do if she could, but often fails in accomplishing, or only succeeds when her victory has cost her dear. When as yet the poison has infected but one or two glands, we have good grounds to hope that by their removal we may eliminate from the system every focus of infection. Every case is not suitable for the same method of treatment, and in some cases we have little choice left to us as to what method we shall adopt. Of all the various surgical methods at different times suggested, there are three which I shall specially refer to as being the best. Each one is applicable to a different class of cases, and although they have been applied indiscriminately by their special advocates, I think there are well-marked lines which should divide those cases in which a special method is applicable from those in which it is not. These three methods are (1) scooping, (2) cautery puncture, and (3) excision.

Of the first method—scooping—I need say but little, as the subject has been very fully and ably discussed in a lecture by Mr. Teale, which was published last year.[3] I shall merely quote a few of his conclusions, with which I entirely agree. 1. "That surgery can secure the healing in a few weeks of gland cavities and sinuses, even though they have existed for years, and of wounds resulting from the removal of caseous and suppurating glands." 2. "That in dealing with sinuses, gland abscesses, and decayed or semi-decayed lymphatic glands, the action of the surgeon must be vigorous and thorough." 7. "That in dealing with a sinus the channel should be enlarged by the knife or by Bigelow's dilator, and the whole of its granulating surface should be scraped off. Where a sinus is shallow and covered by thin blue skin, this imperfect covering should be rasped away by the scraper, and any cutaneous overhanging edges should be trimmed off by the scissors." 8. "That, in dealing with a sinus or an abscess, the surgeon should not rest content until he has discovered and eradicated the gland, always remembering that if it be not obvious there is sure to be a small track leading through the deep fascia to the missing gland. This opening should be enlarged so as to admit the spoon of Lister's scraper." These conclusions which I have quoted explain the classes of cases to which, I think, this method is suitable, and to which I believe it should be restricted. These classes embrace cases in which sinuses exist, or in which a superficial abscess communicates through an opening in the cervical fascia with a suppurating and caseous gland beneath. It is also sometimes a good treatment to adopt when the changes going on inside a gland have given rise to inflammation of its capsule and to the formation of firm adhesions between it and its surrounding tissues. For in these cases enucleation of the entire gland is extremely difficult. I have employed this method in many cases, and my experience of it has strongly impressed me with the belief that the classes of cases I have mentioned are those to which the method should be restricted. For in all of these cases the method of excision is fraught with too much difficulty to authorise us to adopt it in preference to this apparently simpler plan; but, on the other hand, it should not be extended to cases in which enucleation can be readily performed, and for this reason. In most of these tuberculous glands, the gland capsule shares in the disease, and in the scooping operation this is necessarily left behind; moreover, there may be, and there frequently are, enlarged and tuberculous glands in the neighbourhood, which have not yet softened. These escape the spoon, and later on become the foci from which fresh infection starts. Of much less importance is the fact that the incision after enucleation seldom takes more days to heal than that after scooping takes weeks. On these several grounds, I hold that the scooping operation should *only* be done in those cases in which excision is inapplicable.

The second method of treatment is that by cautery puncture. It has found its chief advocate in these countries in Mr. Treves,[4] and it has also found much favour in France. Mr. Treves expresses the opinion that it is "one of the very best operative measures at the disposal of the surgeon for the cure of scrofulous glands." He thus describes it:—"In this operation I make use of a thermo-cautery point about as thick round as a No. 7 catheter. This point, having been heated to a bright-red heat, is thrust through the skin into the substance of the gland, and passed in three or four directions in the body of the tumour before it is removed. ..... If no pus or cheesy matter follows the removal of the iron a simple zinc dressing may be applied, but if any such matters escape then a poultice should be ordered. ..... It is more adapted for adherent than for movable glands." This method I have lately employed, and in certain cases I think it should be productive of good. Its *modus operandi* would seem to be that the intense heat destroys the tubercle bacilli and their products, and it leaves a channel for their escape externally which does not allow of extravasation into the neighbouring cellular tissue. It seems to me that in softened adherent glands, it would probably be more effective than the method of scooping.

The third method of dealing in a radical manner with these tuberculous glands is by excision. It is specially suitable in those cases where the glands are not adherent. The operation is easier the harder the glands are—that is, the less advanced they are in the process of suppuration. The great advantages I claim for this method are that we can in most cases entirely remove all the affected parts, including the capsule of the gland. The wound is a clean incision, mostly through healthy skin, and therefore, with strict antisepsis, heals by first intention, and leaves a scar which in process of time becomes white and often unnoticeable. When the

[2] Clifford Allbutt: op. cit., p. 12.

[3] On Scrofulous Neck, by T. Clifford Allbutt; and on Surgery of Scrofulous Glands, by T. Pridgin Teale. 1885.

[4] Scrofula and its Gland Diseases, p. 193. 1882.

glands are non-adherent, they can be enucleated with great ease. On the 8th of this month, through an incision an inch and three-quarters long, I removed eight glands, three as large as walnuts, and all of them caseous. Seven days after, the wound was healed, and the scar even then scarcely noticeable. But when the tubercular process has been allowed to run its course for a long time, and adhesions have formed, then the real difficulty is experienced, and often a tedious dissection is required before the diseased glands can be removed. And here let me say that this difficulty is often of our own making. We meet a case in which two or three glands in the neck are swollen and hard. A careful inquiry into the history of the case will satisfy us that the glands are scrofulous. But instead of dealing with them at once, we allow the disease to spread, more glands to become infected, and adhesions to form, whilst we wait. Wait for what? To try the effects of this or that external application, painting with iodine, or a host of other remedies, which experience should have taught us in that stage are no remedies at all. Sometimes the delay is due to our unwillingness to make a cut which may leave a scar, and then nature takes the matter in hand, the gland softens, an abscess forms, and the end of it is that a far worse scar is left than would have resulted from timely intervention. Besides, all this time other glands are preparing to go through the same process. Such things ought not to be. What I maintain is, that the earlier we attack these glands the less we shall have to do, and the smaller and more insignificant the scar will be; and, what is more important still, the focus of the disease may be got rid of through quite a small opening. Often, however, we have at least this satisfaction, that we cannot blame ourselves if the disease has become extensive. It may be so when first we see the patient, but even in the most extensive cases of scrofulous glands we may hope for a cure by surgical art. I have notes of fifteen patients from whom I excised tuberculous glands. Two were operated on twice and two three times, making in all twenty-one operations. Some of these were comparatively simple cases, two or three glands only requiring removal. Some of the cases were most extensive, and of these three present points of special interest.

The first case was that of a boy aged seventeen, whose neck was enormously swollen on the right side, owing to the enlargement of the glandulæ concatinatæ and submaxillary glands. I operated on him twice. The first time was on June 12th, 1883. A curved incision, about four inches long, was made behind the sterno-mastoid muscle, and all the enlarged glands removed. They were all caseous, several presenting centres of suppuration in the middle of the cheesy masses. I mention his case because he was attacked with erysipelas three days after operation. The erysipelas began low down on his back, spread gradually over his whole body, with the exception of the parts underneath the antiseptic dressings. This part remained healthy throughout, and the wound healed well. Some months after I removed the submaxillary glands. A similar mishap occurred in a second case, but both made perfect recoveries.

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with cheesy matter contained in it; and when it heals it leaves behind it an ugly and disfiguring and puckered scar. But, even so, the patient is well quit of his disease. More frequently, however, the bacillus has made its way into neighbouring glands. One by one these enlarge, and the same slow process of suppuration begins; another sinus forms through unhealthy purplish skin, and another scar is left; and the cycle is repeated till the whole neck is seamed and unsightly. Is not this a true picture of the disease, and one with which we are too commonly familiar? If more were needed to paint it in its true colours, let me give it in the eloquent words of Dr. Clifford Allbutt: "That the ugly finger of scrofula should be laid chiefly upon children, young men, and maidens, has this pathos in it, that it disfigures them at the spring-time of life—at that time when hope and promise make all life precious, and all death seem the loss of untold treasure; when beauty and gaiety have their fleeting day, and for the loss of them the world is poorer."

But even while this local process of decay is going on the general system is not safe from its ravages. As long as these caseous masses of tubercle exist in the body, so long must we ever bear in mind that the danger of generalisation is possible. But even if we were sure that by repeated and prolonged suppurations the danger of extension were removed and the bacilli expelled, the scarring of the neck is not the least consequence which may follow. Remember that this disease would never have originated but for a peculiar constitutional susceptibility. Will that susceptibility be diminished by months or years of suffering? Will it not rather be enormously increased? During this period "septic matters are absorbed into the blood, recurrent and variable hectics dissipate the appetite, flesh, and strength, so that the patient finds himself at the end of it all, if not unsound in his internal organs, at any rate a far worse man than he would have been had this trial been spared him."[2] Let him become again exposed to tubercular infection, let him breathe impure air impregnated with tubercular poison, and who shall say that he will escape with healthy lungs? It is believed by some that in subjects predisposed to scrofula the involvement of the glands in youth affords them some sort of protection against phthisis subsequently. But this view cannot be upheld. Only the other day a girl came into hospital with extensive disease of both lungs, and her neck was seamed with old scrofulous scars. The worst case of tuberculous glands in the neck I ever saw was in a girl who died of phthisis.

Such then, being the nature of these so-called scrofulous glands, and such the consequences which we have to face, I think I am justified in asserting that the time has come, when the treatment of this disease, except in its earliest stage perhaps, should pass from the domain of the physician, and should be entrusted to the surgeon. In the earlier stage, while still the diagnosis remains uncertain, the treatment is one of expectancy, tempered by constitutional measures. But when once the diagnosis is assured, and there is no evidence that resolution is likely to take place, bearing in mind the nature of the disease we have to deal with, and the consequences which may follow from waiting too long, I am strongly convinced that the surgeon's art should intervene to assist Nature, and to do that quickly, which unassisted she would do if she could, but often fails in accomplishing, or only succeeds when her victory has cost her dear. When as yet the poison has infected but one or two glands, we have good grounds to hope that by their removal we may eliminate from the system every focus of infection. Every case is not suitable for the same method of treatment, and in some cases we have little choice left to us as to what method we shall adopt. Of all the various surgical methods at different times suggested, there are three which I shall specially refer to as being the best. Each one is applicable to a different class of cases, and although they have been applied indiscriminately by their special advocates, I think there are well-marked lines which should divide those cases in which a special method is applicable from those in which it is not. These three methods are (1) scooping, (2) cautery puncture, and (3) excision.

Of the first method—scooping—I need say but little, as the subject has been very fully and ably discussed in a lecture by Mr. Teale, which was published last year.[3] I shall merely quote a few of his conclusions, with which I entirely agree. 1. "That surgery can secure the healing in a few weeks of gland cavities and sinuses, even though they have existed for years, and of wounds resulting from the removal of caseous and suppurating glands." 2. "That in dealing with sinuses, gland abscesses, and decayed or semi-decayed lymphatic glands, the action of the surgeon must be vigorous and thorough." 7. "That in dealing with a sinus the channel should be enlarged by the knife or by Bigelow's dilator, and the whole of its granulating surface should be scraped off. Where a sinus is shallow and covered by thin blue skin, this imperfect covering should be rasped away by the scraper, and any cutaneous overhanging edges should be trimmed off by the scissors." 8. "That, in dealing with a sinus or an abscess, the surgeon should not rest content until he has discovered and eradicated the gland, always remembering that if it be not obvious there is sure to be a small track leading through the deep fascia to the missing gland. This opening should be enlarged so as to admit the spoon of Lister's scraper." These conclusions which I have quoted explain the classes of cases to which, I think, this method is suitable, and to which I believe it should be restricted. These classes embrace cases in which sinuses exist, or in which a superficial abscess communicates through an opening in the cervical fascia with a suppurating and caseous gland beneath. It is also sometimes a good treatment to adopt when the changes going on inside a gland have given rise to inflammation of its capsule and to the formation of firm adhesions between it and its surrounding tissues. For in these cases enucleation of the entire gland is extremely difficult. I have employed this method in many cases, and my experience of it has strongly impressed me with the belief that the classes of cases I have mentioned are those to which the method should be restricted. For in all of these cases the method of excision is fraught with too much difficulty to authorise us to adopt it in preference to this apparently simpler plan; but, on the other hand, it should not be extended to cases in which enucleation can be readily performed, and for this reason. In most of these tuberculous glands, the gland capsule shares in the disease, and in the scooping operation this is necessarily left behind; moreover, there may be, and there frequently are, enlarged and tuberculous glands in the neighbourhood, which have not yet softened. These escape the spoon, and later on become the foci from which fresh infection starts. Of much less importance is the fact that the incision after enucleation seldom takes more days to heal than that after scooping takes weeks. On these several grounds, I hold that the scooping operation should *only* be done in those cases in which excision is inapplicable.

The second method of treatment is that by cautery puncture. It has found its chief advocate in these countries in Mr. Treves,[4] and it has also found much favour in France. Mr. Treves expresses the opinion that it is "one of the very best operative measures at the disposal of the surgeon for the cure of scrofulous glands." He thus describes it:—"In this operation I make use of a thermo-cautery point about as thick round as a No. 7 catheter. This point, having been heated to a bright-red heat, is thrust through the skin into the substance of the gland, and passed in three or four directions in the body of the tumour before it is removed. ..... If no pus or cheesy matter follows the removal of the iron a simple zinc dressing may be applied, but if any such matters escape then a poultice should be ordered. ..... It is more adapted for adherent than for movable glands." This method I have lately employed, and in certain cases I think it should be productive of good. Its *modus operandi* would seem to be that the intense heat destroys the tubercle bacilli and their products, and it leaves a channel for their escape externally which does not allow of extravasation into the neighbouring cellular tissue. It seems to me that in softened adherent glands, it would probably be more effective than the method of scooping.

The third method of dealing in a radical manner with these tuberculous glands is by excision. It is specially suitable in those cases where the glands are not adherent. The operation is easier the harder the glands are—that is, the less advanced they are in the process of suppuration. The great advantages I claim for this method are that we can in most cases entirely remove all the affected parts, including the capsule of the gland. The wound is a clean incision, mostly through healthy skin, and therefore, with strict antisepsis, heals by first intention, and leaves a scar which in process of time becomes white and often unnoticeable. When the

[2] Clifford Allbutt: op. cit., p. 12.

[3] On Scrofulous Neck, by T. Clifford Allbutt; and on Surgery of Scrofulous Glands, by T. Pridgin Teale. 1885.

[4] Scrofula and its Gland Diseases, p. 193. 1882.

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Nicholson of Hull, who kindly examined the case. He also suspected that it was ovarian cystic disease, and suggested tapping at once, and removal by abdominal section in a month if it filled up again. On the 31st she was admitted into the Grimsby Hospital. After using the catheter, I tapped her on Feb. 1st, and withdrew 101 ounces of dark, opaque, brownish-green coloured fluid, sp. gr. 1020. Microscopically it showed numerous leucocytes, granular débris, and large granular masses resembling the so-called granular ovarian cells described by Drysdale, and a few oil-globules. For the next fortnight she suffered from acute peritonitis, the temperature varying from 100° to 103° F., and was too ill to permit further examination. A severe attack of vomiting and diarrhœa followed, which was relieved by starch and opium injections. She rallied for a few days; the temperature became normal; but a slough now began to form through the abdominal walls a little below and to the right of the umbilicus, and she gradually sank and died on March 15th.

Necropsy, six hours after death.—There was great emaciation and an absence of subcutaneous fat. About four ounces of fetid purulent fluid escaped on opening the abdominal cavity, and the tumour was found to consist of a full-term, well-developed male child, placed abdomino-anterior, breech downwards, and in an advanced state of decomposition. The placenta was detached, and mostly absorbed. The sac presented a black appearance, and had undergone secondary inflammation and suppuration. The uterus was small, firmly fixed, quite empty, and its cavity measured two inches.

Remarks.—This case is interesting as showing the difficulty of diagnosis in such cases. Playfair says that "the diagnosis of abdominal gestation is by no means so easy as might be thought, and the most experienced practitioners have been mistaken with regard to it." Barnes, in his last work, says that "almost all the cases in which this form of gestation was suspected which have come under our observation turned out to be ovarian cysts."

AN INTERESTING CASE OF GALL-STONES, WITH NECROPSY.

BY ALBERT WILSON, M.D.

THE following case is of interest at the present time, when abdominal surgery offers such relief to cases of obstructed gall-ducts.

Mrs. B——, aged sixty-five, first consulted me four years ago. She had for a long while experienced pain in the region of the gall-bladder, which had been treated as indigestion. On examination, I found below the tenth costal cartilage a large movable pear-shaped lump about three inches long, which could easily be grasped; it was the dilated gall-bladder. The stools being of normal colour, the obstruction would be in the cystic duct, and the hepatic and common ducts would be free. I treated her with large doses of belladonna, fomentations, and purging with podophyllin and colocynth. The result was that two gall-stones were passed (or rather found in the stools), also a large quantity of biliary gravel. The swelling and pain entirely disappeared, and therefore a cure seemed effected. The patient enjoyed good health for three years, when another similar but slighter attack came on, with distension of the gall-bladder, but it yielded to the same treatment. This time, though symptoms of stones were present, none were found, but much gravel was passed. Again, in January, 1886, she became ill. There was pain over the gall-bladder, which yielded to belladonna; vomiting was also present, but it resisted all the medicines employed, and yielded only to pancreatised food. There were no symptoms of gall-stones, and the gall-bladder could not be felt. She recovered so far as to be able to get downstairs for a few days, but again became ill, and died on Jan. 29th. Her death was not connected with the liver disease. She was extremely weak, the vomiting had returned, and two days before death curious convulsive clonic spasms set in, which seemed to cause death by exhaustion. As the nervous symptoms form a rare and interesting case of themselves, I shall briefly narrate them, especially as the cause was obscure. On January 28th, at 6 P.M., a fainting fit, with unconsciousness for a short period, ushered in the attack, although there had been occasionally throughout the day twitchings of the face and hands. After the faint the twitching set in all over the body: first an arm, then a leg, then the head, then the chest, would be jerked off the bed. On careful examination certain groups of muscles appeared to be affected; those at the back of the neck jerking the head back. The temporals, masseters, and sterno-mastoids, the muscles of the hyoid bone, jaw and tongue, were all in constant activity, tending to bite and jerk the thermometer out of the mouth, the deltoid and pectorals jerking the arm inwards. The biceps, the flexors, pronators, and opponent muscles of the thumb kept the hands and arms in constant motion. The flexors of the legs pointed the toes. Swallowing and speech were affected. She could only speak, and then with an effort, after the administration of amyl had relieved the spasms. Sensation and tendon reflex were diminished; ankle-clonus was absent; volitional power over the limbs was normal. She was quite conscious. The respiration and temperature were normal; the pulse was 140. There was retention of urine in the early stage; later on, the urine and stools were passed involuntarily. On Jan. 29th, the clonic spasms continued, but were feebler, the muscles being exhausted; those of the jaw and neck were the most active. She died during the night. Only an examination of the abdomen was permitted, so that the seat of the nervous lesion must remain a matter of speculation.

Necropsy.—Abdomen: The stomach was empty. The mucous membrane, which was coated with dirty-brown slime, was very congested, and covered with minute pin-point ecchymoses. Repeated attacks of peritonitis had matted together the duodenum with all the adjacent parts. What seemed to be the gall-bladder, but really proved to be an enormously dilated cystic duct, projected half an inch below the liver. I removed the whole mass, with part of the liver, for more thorough examination, and the result was very instructive. On opening the duodenum, the orifice of the common duct was easily found. It was dilated, and would easily admit my forefinger. Passing the finger up, I could feel bare gall-stones. On opening up the common duct, the hepatic duct was found normal in size. Passing to the cystic duct, I was amazed to find it dilated into one large cavity. This duct was dilated into a thin-walled cavity, three inches long and two inches wide, and contained eight large gall-stones with smooth polished facets. On further dissection, a slightly thickened ring indicated the dilated orifice of the gall-bladder. The gall-bladder formed a smaller cavity than that of the cystic duct. Its walls were slightly thickened, and it only contained five stones, one of which was in a distinct pouch at the most distal part. The whole dissection revealed how completely disorganised these parts get when gall-stones accumulate; and it is of great interest that the presenting part, instead of being the gall-bladder, was the cystic duct—a fact worth remembering for cases of operation.

The treatment I employed was belladonna in large doses to relax muscular spasm, and purges to excite reflex contraction of the gall-bladder to expel the stones. Two or three stones and much gravel were passed after the different attacks. The treatment, however, was only partially successful, for although many stones had been expelled from the gall-bladder, for want of sufficient *vis a tergo* some were retained in the dilated cystic duct. By operation the stones could have been very easily removed, as they were all so loosely arranged. The gall-bladder, being provided with muscular fibres, must have a slight expulsive force, which is probably excited reflexly by purgation. This process can be aided by relaxing the neck of the bladder and cystic duct by belladonna, chloral, or opium. The cystic duct has no muscular fibres, while its mucous membrane has several folds; it is, therefore, passive, and has no expulsive power, which accounts in this case for its great dilatation, and for the greater number of the gall-stones lying in it.

Leytonstone.

FOREIGN MEDICAL APPOINTMENTS.—Dr. Kosturin, of St. Petersburg, has been appointed Extraordinary Professor of General Pathology in the University of Kharkoff. Dr. Hans Virchow is to succeed Dr Hofmann in the charge of the anatomical instruction in the Berlin Academy of Art. Dr. Joseph Schröter has qualified as privat docent in the University of Breslau, with the view of cultivating especially the science of Bacteriology. Dr. Friedrich Korányi, Clinical Professor in the University of Buda Pesth, has been appointed Rector for the ensuing academical year.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prœmium.

ST. GEORGE'S HOSPITAL.

THREE CASES OF PYÆMIA, ENDING FATALLY; NECROPSIES; REMARKS.

(Under the care respectively of Drs. CAVAFY, WHIPHAM, and DICKINSON.)

THE following cases present some points of interest when grouped together. It is not very common to meet with three cases of pyæmia in which no cause for the disease can be found, either during life or post mortem, within six weeks, in the practice of one hospital. The disease appears to have been idiopathic, and it is difficult to say in what way the germs of the disease found entrance to the system. The diagnosis in no case appears to have been difficult, but in the second the occupation of the patient and the presence of the pustular eruption evidently caused inquiries to be instituted with the idea of carefully excluding glanders. We are indebted for the following notes to Dr. Griffiths, medical registrar.

CASE 1. Victor H——, admitted May 9th, 1885, under the care of Dr. Cavafy, was a healthy lad of fifteen, who had had no previous illness, and had no cut, abrasion, or sore within twelve months of the commencement of the illness. He had two cold swimming-baths within seven and ten days respectively of admission, but he felt no ill effects and had no rigors; but on May 5th he had acute pains in the legs, with rigors, and then "pains all over." When admitted he had a temperature of 101°, a coated tongue, quick pulse, and patchy redness round the right wrist and elbow, over the right leg and ankle-joint, and some effusion into the left knee. He had no cardiac murmur. There were some dulness and harsh breathing at the base of the right lung, and high-coloured urine, with one-fourth albumen. He became delirious on the third day, with much swelling round the great toe joints and in the third joint of the first finger. On the fifth day his temperature fell to normal, but rose steadily afterwards, remaining at 103° for two days, and rising to 105·4° just before death. He was noisy at night, his tongue became dry and brown, his respiration rate reached 50, and pus was found in the inflamed joints of the toes, with small collections of pus in the right forearm and in the inflamed joint on the right hand. He was unconscious for forty-eight hours before death. No diarrhœa or abdominal symptoms, and no pulmonary complications beyond those associated with high temperature and a recumbent position, were present. Salicylate of soda in large doses had no effect on the temperature. Death occurred on the thirteenth day.

Necropsy, sixteen hours after death.—The blood was very fluid, staining the endocardial lining. There was pus in the right wrist-joint, in the second joints of both great toes, and purulent fluid in the right hip-joint, with a small collection of pus in the substance of the left tibialis anticus muscle, and in the middle of the right forearm. There were numerous small deposits in the lungs of various sizes from a pea to a walnut, and in both kidneys very small deposits, but none in other viscera, which were apparently healthy. No erosion of bone surfaces or other lesions were found.

CASE 2.—Wm. F——, aged thirty-two, was admitted on April 3rd, 1886, under the care of Dr. Whipham. The patient was a stableman, a moderate beer-drinker, who had had no injury of any kind, nor were any of the horses under his charge ill in any way. Beyond the fact that he had had acute rheumatism five years previously, he had "enjoyed the best of health," and did his work up to the date of admission. He had been ailing for fourteen days in an obscure manner with headache; diarrhœa set in thirty-six hours before admission, but there were no signs or pains, and only an extremely slight dry cough. He was a powerfully built man, with a high temperature, but clean tongue; pulse small, 88, and no dyspnœa. He presented much tremor of the hands and tongue. His cardiac action was unimpaired and sounds free from murmur, and, with the exception of mucous râles at the base of the right lung, with rhonchi over both sides, there was nothing to be heard over the thorax. No abdominal symptoms and no enlargement of abdominal viscera. Urine, concentrated, specific gravity 1030, with a faint trace of albumen and some excess of urea. He sweated profusely, had no acid smell about him, and his expectoration was bronchitic. On the third day he presented breathing of a tubular character in the right midscapular region, and his expectoration became rusty-coloured. Diarrhœa set in again on the fifth day after admission, the stools being loose and light, but there were no spots on the abdomen. His pulse and respiration rate, however, increased from this point, though the former was usually 110 and the latter 30. He became delirious on the tenth day, with increased tremor of hands, distended abdomen, and ten loose motions; and on the eleventh day numerous small pustules came out on the thorax, face, and shoulders, a few on the thighs, but none on the abdomen. He had acute inflammation round the right ankle-joint and the third joint of the third right finger, with a sweet smell in the breath, a dry tongue, and pulse of 128, with respiration of 60. He passed into delirium with subsultus tendinum. Fresh crops of pustules made their appearance, running a rapid course, with two small collections of pus over the middle of each tibia on its outer aspect. He died on the thirteenth day after admission, and on the twenty-seventh day after his first feeling of illness. He was treated with expectorants, stimulants, and a grain each of calomel and opium at night. The temperature chart showed a gradual evening rise from April 3rd, when it was 102·6°, to April 13th, when it reached 105·8°, there being a morning remission of from one to three degrees.

Necropsy, sixteen and a half hours after death.—The blood was fluid. There was a small collection of pus over the outer aspect of the middle third of each leg. There was no other purulent material to be found, and no deposits in lungs, liver, spleen, or kidneys, and no intestinal lesions or lesions of bone.

CASE 3.—Charles H——, aged fifty-three, was an old soldier of thirty years' service, who had been employed in a draughty picture-gallery. He had had no previous illness, except an injury to the head some five years before. He had complained of malaise for one month, with no definite symptoms, but did his work up to twenty-three days before admission, when he left off work owing to a slight cough and a boil on the right hip, which yielded readily to poulticing. He became strange in manner, and for six days prior to admission had been delirious. There had been slight diarrhœa set up by purgatives for four days, but he had had no rigors, nor had he complained of sore-throat. Nor, with the exception of a corn which he was in the habit of cutting on Sundays, was there any abrasion, wound, or injury. He was admitted, under the care of Dr. Dickinson, on April 22nd, 1886, with a temperature of 103°, a dry, leathery tongue, pulse 112, slightly dicrotous, and with respirations of 48. He was in a state of semi-collapse, with tremors of hands and slight subsultus tendinum. There were several small boils on his legs, with one large-sized collection of pus on the forehead; patchy redness over the dorsum of the left foot, round the right ankle-joint, and outer side of knee-joint, with some effusion into both knee-joints. His urine was lithatic, sp. gr. 1025, with a cloud of albumen on boiling. Heart's sounds were weak, but free from murmur. Lungs: Wheezing rhonchi with coarse râles on both sides, and at the right base dulness with weak breathing, fine moist sounds, and diminished vocal resonance. Abdomen tumefied, but exhibiting no eruption and no enlargement of abdominal viscera. This was readily recognised as a case of pyæmia, and treated with stimulants (eight ounces of brandy and eighteen grains of quinine daily). He exhibited next day a number of small vesicles, which became pustular quickly, and the pulse rate and respiration rate quickened, while he became delirious—delirium of a low muttering kind, with subsultus and busy movements of the hands. He passed two black liquid stools and the albumen in his urine increased slightly in amount, the urea being 2·2 per cent. and the specific gravity 1025. He slept scarcely at all, and on the fourth day became profoundly delirious, while fresh successive crops of rapidly-forming pustules made their appearance on the body and face. Patchy redness spread over the

third joint of the middle finger of each hand, and his temperature rose to 104·4°, the maximum during his illness. From this point he sank, his temperature remaining at 104°. There was floccitatio and busy delirium, ending in death on the fifth day after admission, successive pustules appearing and maturing within two hours. He passed only the two motions mentioned, took food fairly well up to the last twenty-four hours, and presented no additional symptoms.

Necropsy, twenty-nine hours after death.—The body was well nourished. Numerous small abscesses were found—one on the centre of the forehead, others on the outer side of the upper third of the legs and front of the right thigh. There was purulent fluid in both knee-joints; a small hard uninflamed corn on the right foot. The lungs exhibited patches of deep congestion freely scattered throughout, but mostly affecting the apex of the right and the base of the left lung, but showing no tendency to breaking down. There was nothing abnormal in the liver, spleen, kidneys, or intestines, or in any bones. Ulceration of the left tonsil, of a recent character, was shown to have existed.

Remarks.—These three cases belong to a large class, in which no apparent injury can be found after death; the ulceration of the tonsil in the last case being of very recent date, supervening in the course of the illness. That pyæmia is capable of arising idiopathically is denied by many; and in cases of recovery the cause is attributed to some superficial ulceration, or slight inflammation of bone or periosteum. But cases in which a careful post-mortem examination has been made, with negative results, seem to point to the possibility of such idiopathic origin.

ROYAL SOUTHERN HOSPITAL, LIVERPOOL.

TWO CASES OF ILEUS, OCCURRING IN BROTHERS; EMPLOYMENT OF TOBACCO; RECOVERY; REMARKS.

(Under the care of Dr. CAMERON.)

CASE 1.—J. D——, aged twenty-two, was admitted on Jan. 26th, 1885. His previous health had been unexceptional, and his present illness dated from the 19th, when, whilst working with an axe in a stooping position, he was seized with sudden pain in the abdomen, which necessitated his giving up his work—that of block-making—and going home. Vomiting commenced the next day, and continued at intervals up to admission. He thought he had kept down little or no food during the week, but the amount of pain had on the whole been inconsiderable. Purgatives and injections were, he said, freely administered to him before admission; but there had been total constipation since the date of his attack, with the slight exception that one injection given three days before coming to the hospital produced a very slight motion; and since the constipation began he thought he had passed no flatus. His bowels had previously been quite regular, acting daily, and no irregularity in his diet could be fixed upon, unless it was that he had eaten half a pound of pork for dinner on the 17th. He had been strictly temperate.

On admission, the signs were chiefly negative, and nothing was made out by examining the abdomen, except a little tenderness in the epigastric region. The rectum was empty. The temperature was subnormal, and the pulse 80; tongue clean and moist; and the patient did not seem at all ill. Shortly after admission he vomited some green bilious fluid. He was ordered five minims of tincture of belladonna every three hours, a mustard poultice to be applied to the abdomen, and to have a limited amount of food.

Jan. 27th.—Patient comfortable; pulse 72; rather hungry and very thirsty. Has had seven ounces of gruel and seven ounces of milk since admission. The belladonna was lessened.

28th.—Food given: seven ounces and a half of milk and an equal quantity of gruel. Vomited fourteen times in nineteen hours, always of the same character, green bilious fluid, and very little at a time. Urine contains bile; specific gravity 1034. His symptoms being so mild, the pulse 80, the temperature 97°, and the patient in no discomfort, it was determined to try the effect of purgatives, and he was ordered early in the day six grains of calomel in two pills, to be followed by one ounce of white mixture every two hours, and the two pills were repeated in the evening.

29th.—Food given: five ounces and a half of milk and four ounces and a half of gruel. Has had the four pills and ten ounces of the white mixture. Abdomen more tense and uncomfortable; no tenderness; a little pain. Some hiccough. No action from bowels, and no flatus passed. Vomiting, which had been absent since the previous morning, returned during the afternoon, six times altogether; character as before. General condition much the same. Pulse 84; temperature 97°. In view of the urgent symptoms that might at any time arise, a consultation was held, at which it was decided that at present there was not sufficient reason for any operative interference. The purgative treatment, having been fairly tried, was discontinued, and he was ordered hypodermic injections of morphia, one-sixth of a grain to be given at intervals, according to circumstances. A simple enema was tried without result.

30th.—Food given: two ounces and a half of milk, three ounces and a half of gruel, and two ounces and a half of beef-tea. At a consultation the same opinion was again expressed. He was ordered a tobacco poultice to the abdomen; to have no more food, a little ice only. Vomited occasionally during the day, and in the evening was given an enema of tobacco—ten grains in half a pint. This was repeated during the night.

31st.—This morning he feels a great deal more comfortable. Pulse 84. Tongue rather dry. Abdominal signs quite negative; no pain. Has had no food and is very hungry. No action from the bowels. Passed flatus twice (?) The tobacco appears to have had a soporific effect; he has slept much more since it was employed. Another tobacco poultice was applied to the abdomen, and the tobacco enema repeated. All three injections were retained.

Feb. 1st.—Temperature subnormal. Pulse 100. Has had no food. Vomited once, with return of pain at the same time, more severe than before. No more flatus passed. Ordered another tobacco injection, which produced some faintness, though returned almost immediately. Patient does not smoke or chew. The morphia injections were continued, but in the evening he was "very uncomfortable," and the pulse was 100. He was ordered a little brandy, at the rate of an ounce and a half in twenty-four hours.

2nd.—Passing flatus freely since about 3 A.M. Bowels acted in the afternoon; motion semi-solid. Allowed a little liquid food once in two hours.

4th.—Bowels have acted four times since. Ordinary milk diet.

6th.—Bowels not open again. Given half an ounce of castor oil, after which they acted twice. Diet increased.

10th.—Bowels acting once a day; stools rather loose; never passed any scybalæ. Discharged well.

CASE 2.—T. D——, aged twenty-nine, who has been subject to attacks of constipation for about three years, and has frequently had to take purgatives, was admitted on March 27th, 1886. Eighteen months ago, having been then constipated twelve days in spite of purgatives and injections, the patient was admitted into this hospital, and was ordered a large enema of soap-and-water; after which the bowels immediately acted freely, and he was discharged after a day or two. He again became constipated a week afterwards, but was relieved by a purgative. He is very temperate, and does not smoke or chew tobacco; his occupation is that of scraping ships, often having to work in cramped and constrained positions and in a very small space. His bowels had been acting regularly up to the 18th, when he began to feel pain in the right iliac region. The bowels acted again on the 20th and on the 22nd, on which evening the pain became more severe, and he took a purgative. He vomited frequently next day, and subsequently at intervals up to admission. The bowels only acted once—very slightly—since the 22nd, though he took several doses of jalap, castor oil, &c.

When admitted he said he had severe pain in the left side of the abdomen and in the epigastrium. The general signs were all negative; pulse and temperature normal. He was ordered an enema with one ounce of turpentine, one ounce of white mixture three times a day, and low diet.

March 28th.—Pulse and temperature normal. The bowels acted very slightly after the injection. Has vomited once. Says he still has the pain, but that it is not so severe. Injection repeated with one ounce of castor oil.

29th.—Temperature morning and evening 99°; pulse 88. Has vomited once. Bowels not acted. The pain is said to be worse to-day, and the abdomen tender. Examination reveals nothing. To have nothing by the mouth except ice. A tobacco poultice to be applied to the abdomen.

March 30th.—Temperature 99·6°; pulse 92. No further vomiting. The poultice "took away the pain instantly."

Passing flatus freely, which he had not done for some days. Allowed a teaspoonful of Brand's essence about once in three hours. The poultice to be repeated.

31st.—Pulse and temperature normal. Flatus still being passed, but the bowels have not acted. To get up for a little in the afternoon.

April 1st.—Feels quite well; fæces felt in rectum and a simple enema ordered, after which the bowels acted freely.

3rd.—Bowels have acted three times since. No scybalæ passed.

5th.—Discharged well.

Remarks by Dr. CAMERON.—The duration of the sudden and complete constipation in the first case—fourteen days—is worthy of notice, as during this time no very urgent, as distinct from anxious and serious, symptoms arose. The temperature was always subnormal; the pulse only once reached 100. The vomit never became stercoraceous, nor did the patient ever seem really and acutely ill. In both instances, the symptoms being so mild and the signs so negative, it was decided to try the effect of purgatives; but failing in their object they were stopped, as only likely to do harm, whilst the benefit derived from the subsequent employment of tobacco was very marked. It will be seen that the amount of food at first allowed in Case 1 was extremely limited; possibly the effect of afterwards withholding it altogether was beneficial. The difficulty of diagnosing with certainty the exact cause of an intestinal obstruction was here fully exemplified; in both cases, though symptoms were present, physical signs were conspicuous by their absence. Perhaps the attitude and occupation of the first patient at the time of his sudden seizure may have produced a temporary twist, which left for a time a complete paralysis of the bowel; and in the second case, the occupation may have been a factor in producing the attack under notice, and the previous minor attacks of apparently simple constipation to which he had been subject. The cases are also interesting as having occurred in brothers.

Medical Societies.

OPHTHALMOLOGICAL SOCIETY.

Foreign Bodies.—Cholesterine in Detached Retina.—Exophthalmic Goitre.—Detachment of Retina.—Embolism of Central Artery in Puerperal Septicæmia.—Cataract Extraction.

AN ordinary meeting of this Society was held on the 10th inst., Mr. Jonathan Hutchinson, President, in the chair.

Mr. BRUDENELL CARTER related a case in which a fragment of the edge of a steel chisel had been harmlessly embedded in the sclera of the right eye for fifty weeks; the chip had entered one line from the cornea on the outer and lower side, and had gone directly backward, and could be seen embedded in the choroid or sclera, and surrounded by a few small blood-clots. The eye was kept under the influence of atropine; the chip became coated with lymph; the blood-clots underwent absorption, and vision returned to the normal. All congestion had disappeared in three weeks, when the patient returned to his work as a carpenter. Central vision was unimpaired, and the blind spot, due to the fragment, could be found with difficulty.—The PRESIDENT had known of cases of foreign bodies about the eye in which no irritation had ensued.—Mr. SIMEON SNELL referred to three cases read before the Society last October, and also to another in which a piece of steel lying above the optic disc was detected, but there was no sign of its mode of entrance.—Mr. BRUDENELL CARTER spoke of a case of dark amber-coloured cataract in one eye which was extracted; in its centre a small dark fragment of iron was detected, but there was no sign of how it got there; the man had been present at the explosion of a boiler, but was unaware of any accident to his eye.

Mr. SIMEON SNELL (Sheffield) related the case of a boy, aged eleven, who had been blind with the right eye since about three years of age. When seen in the early part of 1886, the retina was detached, opaque, and thickened, but more so in some parts than in others. Cholesterine-plates were studded over the retina, chiefly on the inner side; these were visible to the naked eye, but much better with focal illumination or the mirror. The retina was nearly universally detached, and only at the periphery outwards was a slight glimpse of indistinct red reflex obtained. The character of the subretinal fluid could not be made out. The left eye had a high degree of hypermetropia (8 D), but was otherwise normal. Mr. Snell remarked on the presence of cholesterine, which had been observed in most parts of the interior of the globe.—Mr. NETTLESHIP did not know which Mr. Snell considered the more important, the presence of crystals of cholesterine or the detachment of the retina in so young a patient. Detachment of the retina in children was probably not of very rare occurrence, though it was difficult frequently to ascertain the cause. He remembered to have examined an eye, when curator at Moorfields, that showed a large detachment with patches of white appearance thereon, and also a kind of whitish sediment, probably of a fatty nature; scarlet fever was the probable cause in this case.—Dr. BRAILEY considered that detachment of the retina in children was not very uncommon; they constituted a form of pseudo-glioma; in cases where hæmorrhage had occurred the intra-ocular tension was increased, and this separated one form of pseudo-glioma from others. These cases, however, were not of quite the same kind as that referred to by Mr. Snell. In reply to Mr. Nettleship, he said that there was no evidence of iritis in the cases alluded to.

A paper on Exophthalmic Goitre, by Mr. W. O. MAHER of Melbourne, Australia, was read by the Honorary Secretary (Dr. W. A. BRAILEY). It related a case of exophthalmic goitre, with unilateral exophthalmos, occurring in a man aged thirty-four. Exophthalmos had been noticed by the patient a year before he applied for treatment; palpitation had been present for three years; the thyroid gland was found to be notably enlarged, especially on the right side, and the exophthalmos was present on the same side, the right cornea being 2·5 millimetres to 3 millimetres in advance of the left. Von Graefe's symptom was absent.

Mr. MAHER also contributed a case of Total Detachment of the Retina in a boy aged eight. The child had had a squint divergent for four years before he came under observation. The pupil did not react directly to light, and but slightly indirect; extending across the retina at the upper part was a thin band of organised lymph. Vision was so defective that there was not even perception of light. The mother was confident that the child had never received any blow on the eye, and that the only injury the eye could have received was at birth, when the forceps was used. The presence of the band of lymph in the retina was thought to point to the detachment being of traumatic origin; and, as complete congenital detachment of the retina was probably unknown, Mr. Maher was inclined to think that the detachment was probably due to injury inflicted by the forceps.

Mr. SIMEON SNELL related a case of Embolism of the Central Artery occurring in a young woman aged twenty-six. After the birth of her first child, on November 19th, 1885, she was much neglected by the midwife, and was not kept clean. Four days later rigors commenced and symptoms of septicæmia developed. The pulse was 120, and the temperature 103° F. The medical man called in thought the condition very grave at first. During the night of Nov. 27th sight was suddenly lost in the left eye. She gradually recovered from the septicæmic state, but vision remained lost, and when first seen by Mr. Snell in January, 1886 (two months after the attack), the appearances in the fundus were those of embolism of the arteria centralis retinæ in a late stage. There was no cardiac disease. The interest of the case lay in its association with puerperal septicæmia. In the puerperal state, and in the feeble condition of the patient, simple thrombosis of the heart or pulmonary vessels could easily have occurred, and might have been the source of embolism. The source of the embolus was doubtful, but he wished to record the fact of the occurrence of embolism of the central artery of the retina in septicæmia, and that its course was not attended with any unusual or inflammatory effects.—Mr. NETTLESHIP asked whether there was not more hæmorrhage and haziness of the retina than usually obtained in embolism.—Dr. S. MACKENZIE had not seen a case of embolism of the central artery of the retina in relation with pregnancy or the puerperal state.—Dr. J. ANDERSON thought that pregnancy was a predisposing cause of embolism of the left middle cerebral artery, which was very prone to occur when mitral stenosis and pregnancy were combined.

A paper by Dr. DYCE DAVIDSON (of Aberdeen), relating a

case of Meningitis after Enucleation, was read by Dr. STEPHEN MACKENZIE. The patient, a woman aged forty-nine, had received an injury to the right eye four or five years before the enucleation was performed; the eye had been quiescent for three years until three weeks before she applied for treatment. She was impoverished, ill-nourished, and broken down in health, but presented no signs of any disease. The urine did not contain albumen. The eye, which was painful and tender in the ciliary region, was enucleated three days after admission, antiseptic precautions being used, and a salicylic pad applied. Twenty-four hours later she was in a high fever, had vertical headache and a foul tongue, but the wound was healthy. She died comatose on the third day. The wound looked œdematous at the time of death. At the necropsy meningeal inflammation with redness of the optic nerve and œdema of the orbit were observed. All the other organs were healthy except the uterus, which was in a condition of catarrhal inflammation. Dr. Davidson suggested that the case was one of pyæmia started by this condition of the uterus, and surmised that this suggestion might explain other cases.—Dr. BRAILEY wished for further information as to the salicylic pad, as he thought there were important variations in treatment with regard to the use of pads.—The PRESIDENT said he had enucleated over and over again during the acute stage of suppuration, but had never had a case of meningitis.—Mr. NETTLESHIP said that half the cases had occurred in males, and thought it was unnecessary to look to the uterus for a source of septic infection.—Mr. WARREN TAY considered that further information as to the nature of the meningitis and the state of the optic nerve (which was not usually affected) ought to be obtained.

Mr. BRUDENELL CARTER read a paper on some Practical Points connected with Cataract Extraction. He commenced by referring to a paper by Mr. Critchett, dealing with certain improvements of detail on which further progress in cataract extraction must chiefly depend. Mr. Carter expressed his concurrence in Mr. Critchett's remarks about the spring speculum, the entire abandonment of which he had himself advocated in a note added in the beginning of 1885 to the still unsold copies of his Lettsomian Lectures. He did not, however, approve of Mr. Critchett's suggestion to use the third finger of the fixing hand as a lid-elevator, preferring the elevator of Noyes in the hands of a careful assistant. He thought that Mr. Critchett's method unduly restricted both the choice of a fixing point and also the mobility of the fixing hand; and he condemned the oblique section which these restraints rendered necessary, on account of its tendency to expose the coloboma iridis, and to produce astigmatism along an oblique corneal meridian. He referred to the application of antiseptic surgery to operations on the eyes, and advocated the use of a solution of cocaine and of salicylic acid. Dr. Galezowski's dressing of specially prepared gelatine had not been successful in his hands; and he recommended a compress of wet cotton-wool, placed over a morsel of linen smeared with sanitas vaseline, and retained by a strip of knitted cotton, this being secured by three pairs of strings. As among trifles contributory to perfection, he attached much importance to this method of dressing.—Mr. ANDERSON CRITCHETT defended the use of the finger in the place of the speculum, because he found it best to make fixation just below the point of counter-puncture. The old French toothed forceps used to tear the conjunctiva; he had found the double fixation hook answer well in some cases; but the best instrument was a slight modification of the forceps used by Dr. Bell Taylor; with this instrument, a few fibres of the sclerotic could be pinched up, and a firm hold got upon the eye at any point. Holding the eye at the point where the counter-puncture was to be made, the section could be made of any size. It was impossible for the assistant to work in perfect harmony with the operator, and time might be lost. Where the operator depended entirely upon himself, the commencement of a spasm could be felt, and the finger relaxed. In completing the section, the finger was withdrawn, the lid closed gently, and there was thus less chance of the lids being squeezed together. With cocaine the patient had less control over the lid, and the danger of a squeeze was greater. With regard to the oblique incision, he was in the habit of making his puncture very little below the centre of the pupil, and it was not necessary, as a rule, to remove more than the central portion of the iris. He had not suggested that it was desirable to cut out with one push; three-fourths of the incision might be made with the push, and the remainder in withdrawing. The knife he used was curved, had a central point, and commenced to bulge immediately below, so that, with a steady onward push, it cut its way so far as to complete three-fourths of the section. He referred to the case of an old man, aged eighty-four, in whom he had operated on both eyes simultaneously. In the one eye he had made the incision entirely in the sclerotic; in the other he had made it entirely in the cornea. In this he had followed a dictum of his late father, who had always taught that, in operating on both eyes simultaneously, it was always right to give the patient every chance by choosing a different operation for each eye. M. Galezowski, who was present at the operation, provided some of his gelatine discs, which he stated he had used in 107 consecutive cases without a single case of suppuration. In this case, unfortunately, the eye in which the incision was confined to the cornea suppurated with remarkable rapidity; the other eye did very well, and sight was good. The case illustrated the wisdom of the late Mr. Crichett's dictum: if the incision had been made in the cornea in both eyes, probably both would have been lost.—Mr. NETTLESHIP commented on the very strong solutions of cocaine used by Mr. Carter. He agreed with those who believed such a custom to be dangerous, and used a 2 per cent. solution. He thought the exact direction of the incision was of small consequence; the incision directly upwards gave the best cosmetic results. Liebreich always made his section downwards entirely in the cornea, and never used a speculum; in his hands the results were good on the whole.—Mr. MCHARDY suggested that it was advisable to put a drop of cocaine in the eye not to be operated on; spasm was less liable to occur when this was done.—Mr. HODGES (of Leicester) had performed Mr. Critchett's operation in severe cases, but only in one case without the speculum. He had been exceedingly pleased with the ease with which the operation could be performed and with the final result.—Mr. BRUDENELL CARTER, in reply, said that he had not met with the tendency to spasm with the frequency Mr. Critchett inferred. For fixing, he preferred a pair of forceps with a broad flat point, and with at least three or four teeth. The advantages of the meridional fixing point were considerable, and he thought it important to have freedom of movement in the fixing hand. The cocaine solution contained salicylic acid; it was thus antiseptic, and it had the advantage that in washing the eye the cocaine was not all washed away.

The following living and card specimens were exhibited:—Mr. W. P. Kiall (Bristol): A boy in whom Evisceration of the Eyeball was performed, and a hollow silver ball introduced; the boy had subsequently received a blow, followed by a "black eye," but without any other consequence. Mr. W. Lang: A young woman in whom Evisceration was performed, and a glass ball inserted in the manner recommended by Mr. Mules; a glass eye had been fitted, and the movements were fairly good. Mr. S. Snell: A Stamp for indicating Axes of Cylindrical Lens. Mr. J. B. Lawford: New Tissue formation in Choroid (and Retina?) following injury, probably rupture of choroid. Mr. Marcus Gunn: A woman who had presented for many years symptoms of Tabes Dorsalis and Exophthalmic Goitre, in whom marked pigmentation (? Addison's disease) had recently developed.

OBSTETRICAL SOCIETY OF LONDON.

Artificial production of so-called Lymphatic Varix.—Causes of Difficulty in Turning.—Spurious Hermaphroditism.

A MEETING of the above Society was held on June 2nd, Dr. Potter, President, in the chair.

The following specimens were shown:—Dr. John Phillips: Fibroids in Twin Pregnancy. Dr. Herman: Fœtus and Placenta from Extra-uterine Gestation, removed by Abdominal Section. Mr. Knowsley Thornton: Ovarian Tumour and Fibro-myoma Uteri removed at the same operation.

Dr. F. H. CHAMPNEYS read a paper on the Artificial Production of so-called Lymphatic Varix. The object of the author was to determine whether so-called lymphatic varices could not be produced at will by the simple expedient of cupping striæ in the skin which were not œdematous. If this produced appearances which could not be distinguished from so-called lymphatic varices, it would tend to prove that these are really due to general lymphatic œdema, showing most plainly over the least supported parts of the

skin, and not to any peculiar arrangement of lymphatics or to obstruction of any particular lymphatic trunks. This was proved to be the case. The author concludes that lymphatic varix is a misleading expression.—Dr. HERMAN said that Dr. Champneys had spoken in his paper of lymphatic œdema and of œdema in his remarks. He asked whether this alternative mode of expression was simply for brevity, or whether it illustrated his view as to the nature of the fluid filling the cracks. He believed, with many others, that in phlegmasia dolens there was not simply œdema from venous obstruction, but there was obstruction in the lymphatic system of the limb. There was little direct proof of this, but there were strong arguments from analogy in its favour. Dr. M. Duncan's case was important, for if the fluid in the varicose skin cracks were lymph, it furnished some direct evidence that there was obstruction to the return of the lymph from the limb. Did Dr. Champneys consider that his experiments had any bearing on this question? When he spoke of œdema, did he mean the swelling that resulted from altered pressure-relations in the capillaries or did he mean by "lymphatic œdema" that the fluid had been exuded from the lymphatic vessels?—Dr. M. HANDFIELD-JONES called Dr. Champneys' attention to three cases of dilatation of lymphatic radicles which were in St. Mary's Hospital and were published in THE LANCET, Aug. 7th, 1875. They closely resembled that of Dr. M. Duncan. Mere œdema was not sufficient to produce the appearances described. Some active pathological condition attacked the small spaces from which the lymphatic vessels started and spread from thence along the larger canals. It was noteworthy that, considering the frequency of œdema of the lower limbs, the appearances described in the cases referred to were rare.—Dr. CHAMPNEYS said his paper was an argument that the so-called "lymphatic œdema" was not a special affection of lymphatic vessels, but was merely a general œdema showing most plainly at the weakest parts of the skin. In reply to Dr. Herman, Dr. Champneys said he meant ordinary œdema, and not any special affection of the lymphatic vessels.

Dr. G. ERNEST HERMAN read a note on one of the Causes of Difficulty in Turning, with remarks on the Practice of Amputating the Procident Arm. The author describes difficulty in turning due to impaction of the point of the shoulder below the imperfectly dilated internal os. In these cases there is no great difficulty in seizing the lower extremity, but when this has been done the condition described prevents the child from rotating. The proper way to overcome the difficulty is to press the point of the shoulder towards the middle line of the cervical canal, and thus disengage and raise the shoulder. When this is done the child is easily turned. The author then refers to the writings of those who have advocated amputation of the arm in cases of transverse presentation which cannot be turned, on the ground that turning becomes easy when this has been done. He believes that these cases were of the kind now described by him, and that the amputation of the arm was effective by removing the resistance offered by the impacted shoulder. But he did not think amputation of the arm was proper in such cases, for the child could be turned if the point of the shoulder was disengaged in the manner he had described, and if the child were dead, decapitation was better than amputation of the arm followed by turning.—Dr. GALABIN did not think that the internal os could prevent the shoulder being pushed upwards. It might, however, prevent its ascent when the attempt was made to turn as described by Dr. Herman, by acting on both poles of the fœtus at once, for this would move the shoulders not only upwards but also outwards, and it would be more likely to be resisted by the projecting ring. He had never had occasion either to cut off the arm or push the shoulder; and he had only once met with a case in which it was impossible to turn, and he had to decapitate. In this case a shoulder had been mistaken for a breech, and expectant treatment continued for two days. He believed that there was no case in the records of the Guy's Hospital charity in which turning was impossible and alternative embryotomy became necessary. Where it was necessary to act on both poles of the fœtus, he would make the action alternately, pulling down a leg and pushing up a shoulder. He asked if Dr. Herman had been always successful with his method, or whether embryotomy was still necessary sometimes.—Drs. Boxall, Champneys, Playfair, Cleveland, and the President also made remarks. — Dr. HERMAN, in reply, said that he did not assert that the condition described in his paper was the cause of difficulty in every case, but that, on the contrary, he thought it an occasional and rare source of difficulty. There was in these cases little difficulty in bringing down the foot, but much in turning the child; while where the uterus was contracted tonically round the child there was difficulty in seizing the foot. He agreed with Dr. Galabin, and had pointed out in his paper that the difficulty was augmented by pushing up the shoulder while pulling down the leg. The defined swelling of the shoulder which was present showed that it had been encircled for a long time. He had felt the contracted ring above the shoulder. He adopted in turning the plan advocated before the Society in a valuable paper by Dr. Galabin—i.e., he seized the most easily accessible foot. Attempts at turning had been made under anæsthesia in one of his cases for three-quarters of an hour; in the second anæsthesia was not employed; and he did not remember as to the third.

Dr. JOHN PHILLIPS read a paper on four cases of Spurious Hermaphroditism in one family. The author gave the family history. Out of nine pregnancies, the 3rd, 6th, 8th, and 9th were hermaphrodites. Fright during the third month of pregnancy in the mother's opinion caused the first. None of them survived more than a few days, and the author had an opportunity of post-mortem examination. He laid the results before the Society with all the more important parts dissected out. The family antecedents were very carefully gone into, many of them being personally examined. Several defects, such as hernia and the like, had been discovered. A genealogical tree was appended. The author gave a historical review of the whole subject. There appeared two causes at work on the mother's side in the production of this deformity: 1. The initial fright which she received when pregnant with the first. 2. The continued dread and mental distress which ensued on her bearing a deformed child. Conclusions: 1. A hernial or other weakness present in one parent acting as a predisposing cause, any deep maternal impression received about the third month might induce some impediment to the proper differentiation of the uro-genital system. 2. That a distinct tendency towards bearing hermaphrodites might be developed in a mother who had already borne one.—Dr. M. HANDFIELD-JONES asked as to the relative frequency of sterility in these spurious hermaphrodites. It was a law of evolution that in hermaphrodites one set of organs atrophied in proportion to the development of the other, and so in cases with a large clitoris imperfect uterus and ovaries might be expected.—Dr. CLEVELAND mentioned that he had a patient with only one testicle descended, who was the father of a large family, none of whom were deformed.—Drs. John Williams, Willcox, Champneys, and Galabin also made remarks.—Dr. JOHN PHILLIPS, in reply, said that he thought specimens of spurious male or female hermaphroditism were not uncommon, but that four in one family was unique. The father was the elder of the two parents, but his exact age he could not remember. He could not throw any light on Dr. Handfield-Jones's queries.

Reviews and Notices of Books.

Manual of Operative Surgery. By W. ARBUTHNOT LANE, M.B., M.S., F.R.C.S., Senior Demonstrator of Anatomy, Guy's Hospital; Assistant Surgeon to the Hospital for Sick Children. London: George Bell and Sons. 1886.

A Manual of Operative Surgery. By LEWIS A. STIMSON, B.A., M.D., Surgeon to the Presbyterian and Bellevue Hospitals, Professor of Clinical Surgery in the Medical Faculty of the University of the City of New York, &c. Second Edition. With 342 Illustrations. London: H. K. Lewis. 1886.

FROM the plan and scope of Mr. Lane's work we infer that the author has not aimed at teaching his readers how to operate, but rather how they may answer satisfactorily the routine questions on operations which are set at written examinations. The book is certainly convenient from this point of view. The conduct of an operation is divided into distinct steps, which are duly numbered, and the parts cut through in each incision are clearly and accurately stated. The operations are described after the plan generally adopted in manuals of dissection, and the book impresses us as being

written from the anatomical teacher's point of view. We have noticed a few errors which have escaped the eye of Mr. Lane in revising the proofs. Thus, in the description of gastrostomy no mention is made of the side of the body on which the operation is to be performed. A few pages further on Mr. Golding Bird's case of jejunostomy is stated to have been the first performed in England, while in the very journal to which Mr. Lane refers his readers for an account of this case mention is made of an earlier case in London. The abdominal incision through the linea semilunaris is twice spoken of as "Langenbeck's," and nowhere do we find it correctly called Langenbuch's. On page 204 the reader is told that the second step of the operation for division of the tibialis posticus tendon is to "enter the point of a sharp-pointed tenotomy knife between the tibia and the tendo-Achilles." We notice that in his instructions for the operative treatment of empyema Mr. Lane lays considerable stress upon an opening being made into the lowest part of the cavity; in this he differs from several recent writers on this point, who are able to adduce cogent reasons in support of their view. There are cases, however, and we have seen such, where an opening at the most dependent part appears to be essential to cure. The book is illustrated with several copies in outline of the plates in Braune's Atlas, showing the position of parts in transverse sections of limbs. There are also other outline drawings, giving the position of incisions for various operations. A diagram of the transverse section of the lower parts of the rectum and anus, showing the position of the sphincters and of the openings in various forms of anal fistula, is not a very happy one. The "common form of complete fistula" is represented as coursing beneath the external sphincter muscle. We know that this has been somewhat commonly taught, but in our experience it has been anything but "common" to find that the sphincter muscle is divided in laying open an anal fistula. The common anal fistula is in the subcutaneous and submucous tissue.

The alterations that have been made in the second edition of Dr. Stimson's book are slight. For the most part the former descriptions of operations are unaltered, and we still read on page 346 that in placing a patient for left lumbar colotomy a hard cushion is to be placed "under the *left* side of the abdomen to raise and support it." The recent results of gastrostomy are not mentioned, and it is spoken of as a "very fatal operation." Amputation of the penis is described without mention of such important improvements as bringing the urethra out in the perineum or removal of the entire organ. Again, in the section on amputation at the hip-joint, the arrest of hæmorrhage by the use of Davy's rectal lever is not noticed. Some new operations, such as excision of the kidney, nephrorraphy, and removal of the uterine appendages are described; but we find no mention of nephro-lithotomy. Indeed, the book bears evident marks of too little care in preparation and revision.

Reconstruction of Central London. (Westgarth Prize Essays.)

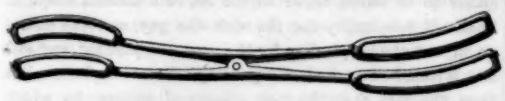
IT is now more than two years since Mr. William Westgarth offered a sum of £1200 to be awarded in prizes for essays on the subject of the reconstruction of Central London. The proposal to benefit the vast community of four millions of persons by the removal of conditions which prejudice their being, and which have been handed down to them by past generations, is one which reflects honour upon its originator, but the result has on the whole proved disappointing. The enormous magnitude of the work has been too great for accomplishment even by the few who are able to think in a comprehensive manner of the details of a scheme for carrying into effect the intentions of the donor, but Mr. Westgarth's efforts have not been altogether wasted. One of the writers of the essays has pointed out that success could only result when London was sufficiently educated to approve the changes which are known to be necessary; and Mr. Westgarth may certainly be said to have accomplished one of his objects — that of making London think of the need for some larger method of dealing with the faults of construction of the older parts of the metropolis than is now provided by existing legislation or than can be accomplished by any existing authority. London is doubtless improving, but its improvement is carried out in so irregular and patchwork a manner that there is an absence of any uniformity in the steps which are taken for this purpose. To some extent the Metropolitan Board of Works has attempted to overcome this difficulty; but, nevertheless, so-called improvements are being effected and substantial buildings are being erected in localities which should be absolutely cleared of buildings altogether, if the making of roads and streets throughout the metropolis in relation to means of access from one part to another were more constantly kept in view. A work of such magnitude could, indeed, be only successfully undertaken by one mind having a fixed purpose. Such was the case in Paris, where one man, Haussmann, supported by the imperial rule of Napoleon, created the magnificent city of which every Frenchman is proud. But Haussmann left Paris involved in debt, although his intentions were far behind those of Mr. Westgarth, whose thought for London was not limited to the construction of a convenient and beautiful city, but of one which should essentially provide accommodation of a suitable character for the poorest as well as the richest of its inhabitants. He had hoped to have done all this, and yet to have so arranged his plans that the improved value of land and property that would result from these changes would compensate for the outlay. His aim was the establishment of a London reconstruction trust, which, by dealing in a more wholesale manner than is at present possible with London improvements, would prevent much of the expenditure which is now caused by the carrying out of a number of isolated schemes. The essays which are now published deal with different parts of this great subject. The sanitation and reconstruction of Central London is discussed by Mr. William Woodward; while Mr. Henry Hewitt Bridgman has written on street-realignment and reconstruction of Central London; the re-housing of the poorer classes of Central London is treated by Mr. J. Corbet's; and certainly each may claim to have added his share to the information which is required for the undertaking of the task. The committee of adjudication of Mr. Westgarth's prizes have reported to the effect that in their opinion none of the essays realise the requirements of the offer in such a manner as to justify them in recommending that the full amount of prizes should be awarded. The duty, however, has been no easy one, and it is pleasant to think that some contribution of a practical nature has been made to the knowledge which is necessary. Space will not enable us to discuss the essays in detail, but their perusal will amply repay those readers who are interested in the welfare of the metropolis, and they will probably pave the way for a more thorough understanding of the difficulties which have to be overcome.

HOSPITAL FOR DISEASES OF THE THROAT.—The annual general meeting of the governors of this institution was held on the 17th inst., the President, Lord Calthorpe, in the chair. The report stated that during the past year the attendances of patients had amounted to 26,669, or 3000 more than in 1884, with an expenditure for the twelve months of £2838 only. The committee regretted to have to point out that donations and subscriptions showed a falling off, and they strongly urged upon the charitable the necessity for additional funds.

New Inventions.

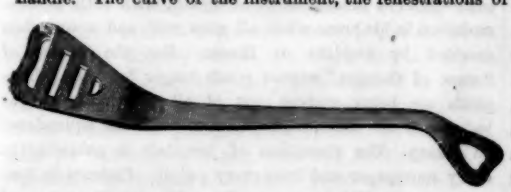
NEW NASAL SPECULUM.—NEW TONGUE-DEPRESSOR.

THE instruments figured below have been introduced by Staff Surgeon T. D. Gimlette, R.N., and are manufactured by Messrs. Arnold and Sons, West Smithfield. The first consists of two pairs of fenestrated blades of white metal joined in the middle by a hinge, so that when one pair of blades is open the other pair is closed. The following advantages are claimed for it over the ordinary nasal speculum at present in use. The fenestrated blades enable the surgeon



to inspect the mucous membrane of both ala and septum nasi at the same time, the whole nasal cavity on one side being exposed at once. It is more easily introduced, and causes less pain than the ordinary speculum, the curves of the blades being those of the ala and septum respectively. It lies flat against the face when introduced, and is very little in the way of any operative procedure. The advantage of having the instrument double is obvious. It is simple of construction, and its cost is moderate.

The other instrument is submitted as being more handy and portable than the ordinary tongue-depressor or spoon-handle. The curve of the instrument, the fenestrations of



the blade, and its shape fitting that of the root of the tongue, render the control of that organ by the observer more perfect and the examination of the fauces more easy. The small end is for use with children.

PAULSON'S PATENT PERPETUAL FILTER.

A STONEWARE filter of somewhat peculiar construction. The outer jar contains a second, which slips into it, leaving an open space at the bottom. The inner jar, which is perforated at the top and bottom with small holes, contains the metallic filtering agent, and into this the water is poured. The cover is hollow, and a mixture of carbonate of soda and tartaric acid introduced into it with a little water causes an evolution of carbonic acid, which is supposed to aerate the water. We followed these directions closely, but did not observe any alteration in the taste of the filtered water. One great advantage of the filter is the ease with which it can be made to renew its activity. For this purpose it is only necessary to lift out the inner jar and heat it for several hours in an oven. This filter has been designed by Mr. W. Paulson, L.R.C.P.L., of Loughborough.

PATENT AMBULANCE WAGGON.

MESSRS. LEE AND TAYLOR of Leicester have brought out a new hand ambulance waggon and stretcher, in which they claim to have combined lightness with great strength and smoothness of running. Underneath it is an "emergency box," containing a few simple medicines, with some splints and bandages. It has been favourably reported upon by several medical officers who have had an opportunity of testing it practically, and it seems well adapted for use in connexion with the police and town hospitals in cases of accident. It appears to us, however, to have a serious drawback in being constructed with four wheels, as it obviously cannot be turned in so limited a space as one which runs upon two wheels.

HYDROPHOBIA.

To the Editor of THE LANCET.

SIR,—I should like, with your permission, to offer a few remarks regarding Surgeon-Major Pringle's paper on the above subject, which appeared in your issue of April 24th, 1886. Is it not possible that the author attaches too much importance to the suction of the wound, and too little to the incisions which were made? It seems to me that free hæmorrhage is a very considerable safety-valve in the case of a bite by a rabid animal; so much so, indeed, that I believe it is good practice, in wounds that are punctures, to incise them, with a view to the encouragement of bleeding, which expels some of the virus, and to facilitate the application of a caustic. I believe it would be a most dangerous precept to condemn cauterisation in the bites of rabid animals. The procedure I have for some time advocated is the following: The wounds should be most thoroughly washed out—deep wounds by means of a syringe—with a warm weak solution of permanganate of potash; punctured wounds being first incised, and bleeding encouraged. After this has been done, each wound should be carefully wiped, and powdered permanganate of potash rubbed into it. When the wounds are deep, injections of a 5 per cent. solution of permanganate should be had recourse to. Now, what are the objects of this treatment? They are (*a*) to cause the expulsion of as much of the virus as possible; (*b*) to neutralise any virus that may remain; and (*c*) to cauterise the part so as to convert it into dead tissue, which, as we know, is incapable of performing the process of absorption. I advocate the use of the permanganate of potash, because I know from practical experience that it has the effect of rendering snake poison, —which appears to be allied to rabic slaver—quite inert. Under any circumstances, I hold that incision, and, in cases where the wounds are ragged, excision, the neutralisation of the virus, and the cauterisation of the parts are the measures which are best calculated to prevent the absorption of the virus into the general system.

I do not propose here entering into a discussion of the merits of M. Pasteur's method; but I cannot help saying that there appears to exist an unreasoning acceptance of assertions in its favour to the exclusion of facts which are unfavourable. So far as I can gather, the very essentials of proof on scientific grounds are wanting. There is nothing whatever to show that the numerous persons being inoculated at his laboratory were bitten by rabid animals, if we except the fatal cases; nor is there anything to show how far immunity from rabies may have been due to causes other than those claimed by M. Pasteur. Nor has sufficient time elapsed in any given case to warrant the assumption that the period of incubation has yet passed.

I remain, Sir, yours truly,

Goalundo, May 15th, 1886. VINCENT RICHARDS.

COLONIAL AND INDIAN EXHIBITION.—Arrangements have been made for the examination in the Indian Court of certain commercial products, which are believed to be insufficiently known or to be suitable for new purposes. Among the substances which will be examined are fibres, silk, and silk substitutes, drugs, tobacco, gums and resins, minerals, oils, oil-seeds and perfumery, dyes, mordants and pigments, timbers, tanning materials and leather, and food-stuffs. Any visitors to the Exhibition, who are interested in the subject, will be permitted to attend these examinations of products, which will take place in the Commercial Room, attached to the Economic Court, where all further information may be obtained.

NATIONAL DENTAL HOSPITAL.—The first dinner in aid of the funds of this hospital will be held on Tuesday, the 29th June, 1886, at "The Albion," Aldersgate-street, Alderman Sir Robert N. Fowler, Bart, M.P., in the chair.

THE LANCET.

LONDON: SATURDAY, JUNE 26, 1886.

No arguments against general hospitals, or in favour of a merely stingy and critical support of them, will hold water. Hospitals are institutions for a generous treatment. Their open doors, their high skill and service, the poverty and sickness of the great majority of their inmates, and covering life itself with a cloud, ought to disarm criticism. When to this is added the remembrance of the work done in hospitals considered as schools of medicine, where the surgeon and the physician learn the art with which in after-time they are to save the life of the rich and the comfortable classes, their claim to generous help is indeed overwhelming.

The Christian arguments will be plied to-morrow with more force than ever. It is thought disadvantageous for the advocate of a great cause to have to acknowledge a favourable state of the finances or the existence of a balance at the bankers. On this occasion the ministers of religion will have all the advantages of a huge deficit. Our carefully drawn tables show that on last year's working alone the hospitals and dispensaries of the metropolis have a deficit of £40,335, and in some of the largest and best institutions of London the deficiency is painful. Take, for example, the London Hospital, contending with the hospital needs of the East-end. Its deficiency alone on common work is £8211, without including an extra expenditure on building of over £9000. King's College for the year has a deficit of £4000; University College of between £3000 and £4000; this without reference to the accumulating deficits of previous years.

HUME, in his account of Queen ELIZABETH, has a fine speculation on the decline of ancient hospitality among the nobility, and attributes it largely to habits of luxury, which dissipated the immense fortunes of the ancient barons. In the time to which we refer hospitality, in the ordinary sense, existed still on a princely scale. There were actually no hospitals, excepting St. Thomas's and St. Bartholomew's, in the kingdom. The provinces were without an institution where a poor man with a broken leg or a fever could be accommodated with a bed. Since then hospitals have become a feature of our civilisation. Every important town in the country has its hospital or infirmary, where the poor man, or his wife or child, in grave conditions of accident or disease, may have a physician and a nurse equal to those who minister to the wealthiest nobleman in the country, or to Royalty itself in the metropolis. This is true hospitality. Is it declining? and if so, what account shall we give of the fact? The hospitality of which HUME spoke is on the increase; it is no longer the exclusive privilege of the baron or the nobleman; it is diffused through society, and in the houses of many of our merchants we may see a more sumptuous dinner or a more gaily apparelled company than was seen in many of the halls of the ancient nobility. We shall be told that times are bad. So they are; but much luxury still survives. A superfluity of hospitality not only in the City companies, but in every rank of life, obtains. A month's—we will not say economy—a month's simplicity of living and entertainment in London would supply the deficit of the hospitals, and add £40,000 to the Hospital Sunday Fund. This is a simple prescription. It would not perceptibly diminish London trade; it would immensely reduce London ailment. Nobody would suffer—save, perhaps, London doctors; and it would redeem our society from the charge of frivolity and luxury, when want, disease, and emaciation cry in vain for admission—for a bed either to be cured on, or to die on, in a London hospital. Shall all hospitality for the rich, the gay, and the strong go on, and the hospitality for the poor, the pinched, and the sick wither? Some of the poverty of our hospitals arises from the fact that the new classes of society, to which wealth has been largely transferred, have not realised the case and the claims of hospitals. The middle class is blamed for using the hospitals and dispensaries, for sending their servants to them, and sometimes even going themselves, but forgetting to send their guineas to the treasurer. This is certainly largely true. But

> "Evil is wrought by want of thought,
> As well as want of heart."

And here, we really believe, it is largely want of thought. Men do not "think," do not "consider" the case of the poor man—short of money, short of breath, with little accommodation in his home when all goes well, and none when disabled by accident or illness. But the excuse of "want of thought" cannot much longer be made. Hospitals are being starved out of all proportion to the badness of the times, while millions are being squandered on luxury. The starvation of hospitals is published in every newspaper and from every pulpit. Patients in hospitals are not fed by manna from heaven; they depend on "good Samaritans" passing by, on their fellow-workmen, on merchants, and on men who are the proprietors of "heaps of gold." Our theory is that out of every such "heap" a hospital should be constructed, which should be maintained by the trained self-denial of people in the possession of ordinary health and means. Sir ANDREW CLARK has well told us that the entertainment of the poor in hospitals is not only a matter of divine charity, but of human prudence. Let to-morrow's collection show that we have taken his wise and warning words to heart.

A SHORT time since a paper was read at the Sanitary Convention of Ypsilanti, Michigan, by Dr. ERWIN F. SMITH, which sets forth in an exhaustive manner the influence of efficient sanitary measures in controlling and reducing mortality. Incidentally, our comments on the reports of medical officers of health are constantly pointing out how great this influence is, and how dependent national prosperity is on the saving of human life from the more preventable diseases. It may be a question whether financial gain accrues to a community by the adoption of measures which go to prolong an old age which is comparatively useless for State purposes, but no such question can arise as regards the control of many of the more preventable diseases, such as enteric fever and phthisis, which kill the breadwinners, leaving whole families dependent for

support on public funds, and which, as regards the latter disease at least, go to enfeeble subsequent generations. We do not propose to follow Dr. ERWIN SMITH into the many details which he brings forward to show that well-designed works of sewerage and of water-supply have caused a reduction in the death-rates of the cities affected; but it is useful from time to time to give prominence to the general conclusions which are involved in records such as he has set out for the guidance of his fellow-workers.

Nature exacts the utmost penalty for breaches of the laws of health, and no amount of ignorance is ever accepted by her as a reason why infraction of those laws should not be followed by their natural consequences. In olden days, when a halo of superstition obscured all recognition of the laws relating to epidemic disease, nations were swept over and over again by disorders such as plague, sweating sickness, and the like, hundreds of thousands of human beings perishing miserably from affections which are now either altogether things of the past, or so limited in their area that this very limitation serves to indicate the causes of their prevalence by mere contrast of the sanitary circumstances which prevail within, and are absent and without, the affected zones. And so it still remains. Thus, notwithstanding the rites and processions carried out in Naples in 1884, the city remained as much scourged by cholera as if nothing had been done, and it was only when an attempt was made to cleanse the town of some of its more glaring sanitary defects, and when later on a pure and abundant supply of water was brought in to replace the polluted services, that some initial advance was made in the direction of preventing the disease. So also Paris, with its 80,000 cesspits and numerous shallow wells, is repeatedly the subject of typhoid fever epidemics; and Toulon, which is aptly described as "a plague spot from time immemorial," has hardly ever escaped from any epidemic coming within its range. At times some event, such as the great fire of London, which at first appears to be an unmingled national calamity, forcibly points out what are the conditions that need removal in the interests of health, and it may be hoped that the special localisations of cholera during the epidemic of the past two years may teach a similar lesson. We got rid of plague in the metropolis by the fire which consumed so much of the city; but the lesson was not fully appreciated, and we again began to aggregate houses on small areas, until, in almost all our large cities, we had constructed permanent typhus centres. Now we are endeavouring to undo this mischief, and it is doubtless in the main due to the vast demolitions of bad house property under the Artisans and Labourers' Dwellings Acts, and in connexion with other works, that London has now for so many years remained free from a typhus epidemic.

With cholera still persistent in certain parts of Europe, and with the knowledge that this same disease has with unerring certainty settled on our insanitary spots in the past, it is most important that we should remember the implacable claims of Nature, and the certainty with which she levies a death tax on those communities and spots that refuse to be taught by past experience. Intervals, and sometimes long ones, are granted in which to do away with the evils which have marked the past; and so far as cholera is concerned, we have in this country been favourably dealt with in this respect. But Toulon, Marseilles, Naples, Palermo, Paris, and many Spanish cities, also had their opportunity, and when the infection came near them, their sanitary administration was weighed and found wanting. There are places in this country of which the same may have to be said, but it will not be for want of warning. Improvement in England has, we believe, been very general in sanitary matters, but the causes of preventable disease will find their way through any weak points in the sanitary armour of our cities and villages that may be left exposed, and to these each sanitary authority and each responsible citizen should turn his attention whilst there is yet time.

ALPINE and athletic clubs are hardly less interested than the physiologist in the elaborate series of experiments recently made by Drs. Mosso and MAGGIORA on the laws of fatigue, and described by them in the monograph just presented to the Accademia dei Lincei. These accomplished inquirers began their operations by constructing a mechanism by means of which they could observe the variations of the efforts put forth by a finger in lifting a weight until entire exhaustion had set in. The mechanism was then readjusted in such a way that the operator's whole arm remained motionless, with the one exception of the muscle corresponding to the finger in action. The variations of the muscular effort were graphically traced on blackened paper, and from these tracings it resulted that every individual under experiment gave a special characteristic trace, which at once distinguished his effort from those of the others. Resistance to fatigue was then seen to be different at different hours of the day, and the influence of food upon it was also found to vary. Further, a special study was made of the important problem of the disposing of pauses, so as to make the outlay of force as economical and as effective as possible. The practical importance of these inductions to pedestrians or soldiers on the march is obvious. According to Drs. Mosso and MAGGIORA, the resulting fatigue is twofold—the fatigue of nervous failure and the fatigue of muscular failure. In certain cases the fatigue comes from the collapse of the muscular tissue only, while in others it happens that the brain suspends the supplies necessary to keep the muscles active. Some experiments showed that if a fatigued finger bore a weight with difficulty, the moment the weight was withdrawn the finger recoiled backwards with force—a proof that while the muscular energy had run out, the nervous energy was striving to compensate it by imposing on the muscle an effort much stronger than necessary. Professors Mosso and MAGGIORA next describe a series of experiments on the influence of the weight to be lifted, as well as on that of anæmia. To ascertain the latter, they constricted the arteries of the arm under experiment by impeding the afflux of blood, or they rendered it totally bloodless by encasing it in strong ligatures of gutta-percha. In this condition the muscle was found capable of continuous effort, but only through nervous excitation, while it was observed in what manner the muscular energy revived gradually as the blood returned into the arm. The effects of fasting, and the duration of time that must elapse after

the taking of food to re-establish the conditions of normal muscular labour, formed a further series of investigations, in connexion with which there was determined the influence of respiration and of those processes of training whereby the organism is inured to bear the heaviest fatigue, as in the case of Alpinists before undertaking a formidable ascent. Finally, Drs. MOSSO and MAGGIORA overhaul afresh the familiar experiments as to what and how great is the influence of certain aliments in the production of labour, whether their action is beneficial or not, confirming by novel methods the induction that alcohol, so far from augmenting muscular energy, positively diminishes it, while other ingesta increase the output of work by substantial reinforcement of the organism. The monograph, on its publication, will be found not to disappoint the expectations formed as to its merits from the previous researches of these eminent physiologists of the sub-Alpine school.

AT the time of our writing the Medical Bill has yet to become a Medical Act. At the last moment, and in the "hurry-skurry" of a premature dissolution, Parliament has been exercising its little power of altering the balance of parties (so to speak) in the Medical Council. Our readers will remember that the only serious attempt of Parliament in the House of Commons to modify this imperfect measure was in the matter of representation on the Medical Council. The friends of the Victoria University made a determined stand about two o'clock in the morning, when most of the members either were or should have been asleep, to get a representative on the Medical Council to themselves; and they succeeded. Then followed the similar attempt of the friends of Aberdeen and St. Andrews; but they failed. The House of Lords has been more propitious. Under the effective lead of the Chancellor of the Aberdeen University, the Duke of RICHMOND and GORDON, the Lords have granted what the Commons denied—a separate representative to Aberdeen and St. Andrews respectively. It is not easy to see how this plea is to be resisted after the privilege of separate representation has been conceded to Victoria University. But, for all that, it is inconvenient. As the Bill left the Commons, England had 14 representatives—i.e., direct representatives 3, Crown 3, University 5, Corporations 3; Scotland, 8—i.e., direct representatives 1, Crown 1, University 3, Corporations 3; Ireland, 7—i.e., direct representatives 1, Crown 1, University 2, Corporations 3. Nobody will say that England has more than her share here. But the numerical disproportion of representation between Scotland and Ireland was a matter of some delicacy, Scotland having one more member than Ireland. The Duke of ARGYLL said in the House of Lords that he had no objection to Ireland having a dozen members if she had as many universities. But the question is by no means so easy of solution as the Duke would imply by this off-handed speech. The whole system of representation of individual institutions is bad. It necessitates a large and costly Council, and every representative is tempted to look at every question of medical education or examination through the spectacles of his particular "body." This evil is notorious; it has tended and will tend to keep down the public respect for the Council. The Royal Commission recommended a smaller and differently constituted Council, as we have always done—one in which the bodies were collectively represented, not singly. No such improvement, however, has been made, and the time has gone for making the attempt. Before this reaches the majority of our readers the Bill will be either lost or passed. In the latter event it will be our duty next week to consider it in more detail.

Annotations.

"Ne quid nimis."

THE ACCESSION OF QUEEN VICTORIA.

THIS being the opening of the fiftieth year of Her Majesty's most happy reign, all classes of the Queen's subjects are eager to celebrate the jubilee with all the enthusiasm with which loyalty to the Throne and respect for the personal merits of the Sovereign inspire the nation. Already the opening notes of the thanksgiving festival have been sounded, and appropriately enough in the Hall-Chapel of the Temple, where the premier society of law interpreters held high carnival after the manner of olden times, and afterwards went to church on Saturday, the eve of the Accession Day. There will be ampler opportunity and more fitting occasion to revert to this subject later on; but we cannot let the week pass without placing on record the expression of a sentiment which pervades the population, and has no firmer hold anywhere than in the minds and hearts of the members of the profession of healing and health-preservation—a sentiment of respectful and earnest well-wishing for the health, happiness, and continued prosperity of the Queen of England, Victoria, whom God save.

THE COMING ELECTION AT THE COLLEGE OF SURGEONS.

BEFORE our next number appears the College election will be over. We must once again impress on Fellows the importance of the occasion and the great desirability of voting for men whose influence will be given in favour of that reform which is as widely demanded by the constituency as it is necessary to the advancement of the best interests of the College. We would especially hope that provincial Fellows will make an effort to be present, in order not only to secure an ample representation of their own body, but also to help in the election of the most enlightened of the remaining candidates. We reproduce the list of candidates published in our issue of the 12th inst. They are as follows:—Mr. Lund and Mr. B. Hill, who seek re-election; Messrs. Sibley, Couper, Willett, Rouse, Brudenell Carter, and Reginald Harrison. Among the metropolitan candidates, Mr. Sibley, Mr. Willett, and Mr. Couper are perhaps the most conspicuous. We could have wished that Mr. Holmes had allowed himself to be nominated; his outspoken views, his high professional standing, and his past experience on the Council would have secured for him a full vote. Among provincial Fellows, Mr. Lund and Mr. Harrison are so well known, and their respective claims on the constituency so well acknowledged, that they need no present commendation at our hands. This present election should be a memorable one, and should be the means of convincing the Council of the earnestness of the Fellows at large in the cause of reforms which, though advocated for many years past, have been persistently refused or ignored by the Council. We may hope, ere another election comes round, that personal voting will have been abolished, and that Members of the College will have been granted their legitimate corporate right of voting and of being directly represented on the Council.

UNIVERSITY OF LONDON.

A MEETING of Convocation will take place on Tuesday, the 29th inst., for the purpose of nominating "a list of three persons to be submitted to Her Majesty for the selection therefrom of a Fellow of the University." Mr. William Thistleton Dyer, B.Sc., Mr. Philip Magnus, B.A., B.Sc., and Dr. Samuel Wilks, M.D., have been proposed. Mr. Dyer's nomination-paper is signed by 275 graduates, Mr. Magnus's by 450, and Dr. Wilks's by 659; so that if the voting-papers show a like return there will be no question as to the selection of the last-named physician. There is a large amount of business on the agenda paper, besides the further consideration of the report of the special committee upon the constitution of the University adjourned from the special meeting of May 25th. Mr. Newsom, LL.B., is to nominate a special committee of seven members to consider the regulations for the examinations for the degrees in laws. Mr. Tyler and Mr. Lynn are to move resolutions affecting the constitution of the University, which will, we imagine, hardly be entertained if the report of the special committee be adopted. Mr. Whitehead and Mr. Nesbitt revive the question of establishing a doctorate of literature or philosophy, in accordance with a resolution passed on Feb. 3rd, 1885. Mr. Cotton proposes that the University should appoint professors and tutors "to promote the progress of graduates to higher degrees." Mr. Whitehead has resolutions having reference to the proposed forthcoming Jubilee celebration. Mr. Round wishes to change the hour of meeting of Convocation, and will move to refer the question to the annual committee. Mr. Spratling gives notice that he will move a resolution in favour of the Senate being enabled to appoint joint committees of the Senate and Convocation or other recognised bodies within the University; he also intends to move that it is unconstitutional and inexpedient to suspend any standing order without due notice.

POISONING BY WOOD-SORREL.

ON June 15th an inquest was held at Gravelly Hill, touching the death of Edward Arthur Geary, aged five years. From the evidence, it appears that deceased ate a "large quantity" of green sorrel (sorrel dock, Rumex acetosa); that next morning, feeling dazed and thirsty, he drank some soap-and-water which stood at hand; and that shortly afterwards he became unconscious and died at five in the evening of the same day. Now, the active poisonous agent in sorrel is oxalic acid, but from personal knowledge and experience we can say that a very considerable quantity of the leaves may be ingested without producing unpleasant, much less dangerous, symptoms. The theory of the medical men engaged in the above case was that the alkali of the soap combined with the acid of the leaves and formed soluble salts of sorrel, which caused the fatal toxic symptoms. We are inclined to think that such combination may have occurred, but whether potassic or sodic oxalate was produced in quantity large enough to cause lethal effects we are somewhat sceptical. It may have been that the poisonous action, owing to slow absorption of oxalic acid from the partially digested leaves, had commenced, and that the symptoms were intensified by the alkaline oxalate. It is a question of toxicological significance, and one well worth working out in the laboratory. It is an instruction in cases of oxalic acid poisoning not to give alkalies on account of the highly poisonous action of the salts generated. Lime forms an insoluble oxalate, and is thus indicated. Theoretically the case seems on paper to be complete, but we should require to be assured that other and, as it seems to us, more probable causes of death had been eliminated before we accepted the verdict of the jury, although it was in accordance with the medical evidence. Neither Taylor nor Guy makes mention of poisoning by sorrel leaves, either alone or in combination with alkali. We should like to know whether the fluid the child drank was simply *soap-and-water*, or a solution of soap less, which might contain a fatally poisonous dose of carbonate of potash. Subject to correction, we are disposed to believe that the death was owing to the "soap-and-water," and that the sorrel leaves had but little to do with the unfortunate event.

THE NECROPSY OF THE LATE KING OF BAVARIA.

THE supplement to the *Allgemeine Zeitung* of Munich of June 16th contains the following account of the *sectio cadaveris* of the late King Louis II. of Bavaria. The necropsy began at 8 A.M. of June 15th, and ended at 1 P.M. It was performed by Professor Rüdinger, with the assistance of "privat docent" Dr. Rückert, the "protocol" being drawn up by Geheimerath von Ziemssen, in conjunction with the above-named professors, and the three alienists, Hofrath Hagen, Professor Grashey, and Director Hubrich. Among those who were present were Professor Kupffer and the body-surgeon of the late King, Dr. Schleiss von Löwenfeld The embalmment, which took place immediately after the necropsy, was performed by Professor Rüdinger and Dr. Rückert, and succeeded extraordinarily well, being finished at 8 P.M. The body had a length of 191 centimetres, the circumference of the chest being 103 centimetres. There was a pretty thick layer of subcutaneous fat, while the osseous and muscular structures were particularly strongly developed. The corpse was somewhat swollen in the face and neck, the skin of the head, especially about the ears being of a livid tint, while on the surface of the trunk and limbs there was diffuse cadaveric petechiæ. As for wounds, with the exception of some small cuticular excoriations on the knees, none were discoverable. The tongue was slightly clenched between the teeth, while the latter were in many places defective [carious?]. The skin of the scalp was very thick and enormously vascular. The skull, in proportion to the size of the body, was small and somewhat asymmetrical, the diagonal diameter from the forehead to the occiput, from left to right, being 17·2 centimetres, while that from right to left was 17·9 centimetres; and the wall of the skull was extraordinarily thin, the greatest thickness being 3 millimetres. The coronal and sagittal sutures were completely ossified on the inner aspect of the cranium, while a row of greater or smaller osseous growths existed on either side on the inner surface of the frontal bone. The superior longitudinal sinus was much dilated posteriorly, while, on the other hand, it contracted anteriorly towards the ethmoid bone in a remarkable degree; and Pacchionian bodies projected in groups into the channel of the sinus. The dura mater was in general considerably thickened, especially over the frontal lobe of the brain; it was vascular, rough, and villous on the outer surface. On the clinoid processes was an osseous outgrowth, projecting to the extent of 2 millimetres. On the left petrous bone was a prominence of 1 centimetre in basal diameter, corresponding to a depression on the temporal lobe of the cerebrum. The dorsum sellæ was asymmetrical, thickened to an important degree, porous, and brittle, as was also the floor of the anterior fossa of the skull. All the sinuses at the base of the skull were distended with dark fluid blood. The weight of the brain, without the dura mater, was 1349 grammes. The arachnoid membrane was thickened to a great extent on both hemispheres, and with milk-white opacities. At one spot—namely, over the mesial extremity of the left anterior central convolution [ascending frontal] and the commencement of the first frontal gyrus—the arachnoid and pia mater were adherent for the area of a mark-piece, and thickened to a tough callosity, while from the pressure

of this latter the corresponding part of the cranial vault was reduced to a paper-like thinness. On the surface of the brain, pretty evenly distributed on either side, there were shrunken regions of the convolutions—namely, on the commencing portions of all three frontal gyri, on the mesial extremity of the anterior central convolution, and in the neighbourhood of the middle section of the post-central sulcus. The cerebral substance was vascular and somewhat soft. As regards the other organs of the body, the following was noted: The lungs, with the exception of the effects of the aspiration of water, were in a completely normal condition. There was no trace of pleural adhesion. The heart was somewhat larger than normal, but of strong muscular structure, and with but a moderate covering of fat. The stomach, which still retained some remains of undigested food, was in a state of chronic catarrh. The walls of the intestines and the liver were congested, and the spleen enlarged, being in a state of commencing decomposition. The kidneys were large and extremely cyanotic, but otherwise normal.

HUNTER'S HOME.

NOT long since we had occasion to draw attention to the impending destruction of John Hunter's House at Earl's-court. Now the work has been completed, and the place is being laid out as a square. A correspondent of a contemporary calls attention to the fact that the builders have obtained permission to name the new thoroughfare "Barkstone-gardens," and suggests that it should receive instead some appellation that would perpetuate the memory of Hunter. We heartily subscribe to this suggestion. The name fixed upon at present may not be inappropriate in itself, but the occasion surely warrants that the greatest person and circumstance connected with old Earl's-court House should be fixed upon to give the new nomenclature. It may not seem a matter of signal merit that here it was that John Hunter kept his caged lions and prepared the skeleton of O'Brien. When, however, we contemplate the prodigious labours of the great anatomist, we cannot help feeling that anything, however small, done in laying the foundation of the magnificent collection at Lincoln's-inn-fields is worth recording; and surely the most fitting place is the scene where Hunter devoted a part of his life's work. We have placed "Cleopatra's Needle" on the Thames Embankment to commemorate, as we suppose, the "dalliance and the wit" of the swarthy Egyptian Queen. Thousands of pounds were spent to bring and rear in our midst an obelisk of uncertain history. Why, then, should we from simple negligence fail to honour, if only by a name, one who has done a thousand times more to make the world healthful and happy than she who "rode on Fortune's neck" and "governed men by change."

SCARLET FEVER IN THE FERNDALE VALLEY.

THE epidemic of so-called "black fever" which was announced to be prevalent in the Rhondda Local Board of Health District turns out to be scarlet fever. But the epidemic is evidently on a wide scale, 350 cases and 24 deaths having occurred up to the 17th inst. According to a correspondent much reliance is being placed on disinfectants as a means of prevention, but although we would by no means undervalue the effect of really efficient means of disinfection by which such materials as bedding and clothing can be rapidly and thoroughly penetrated by a high temperature, it is obvious that in isolation the true remedy against scarlet fever must be found. When once the disease has gained the dimensions of an epidemic it is clear that the time has passed in which all cases can be isolated by the sanitary authority, and hence it is that it is so important to have in readiness beforehand means which will suffice for the isolation of the first cases, and which shall be of such a character as to attract the sick. The provision of hospital accommodation during an epidemic, and with a view of meeting it, is, as a rule, a mistake; but the occasion may well be used to inaugurate an efficient scheme by which the next appearance of the disease may be met in such a way as to prevent another epidemic.

HOSPITAL SUNDAY FUND AND THE THEATRES.

ALTHOUGH the managers of the London theatres have not apparently seen their way to give effect to our suggestion of a special "Hospital *Matinée*," it is pleasant to record the aid they are giving this week to the Hospital Sunday Fund. During the present "Hospitals week" collecting-boxes have been placed at the various entrances for the public as well as at the stage doors and in the "green-rooms" of the following theatres: Adelphi, Britannia, Criterion, Court, Gaiety, Globe, Grand, Haymarket, Her Majesty's, Lyceum, Pavilion, Prince's, Princess's, Prince of Wales (Greenwich), Opera Comique, Strand, Standard, Surrey, Sadler's Wells, Savoy, Toole's, and Vaudeville. It is announced that there will be no detailed statement as to the amount collected at each theatre, but that the money collected at all the various houses will be handed over to the Lord Mayor in the aggregate as their joint contribution. The theatrical profession is notoriously a generous one, and it is to be hoped that playgoers generally will appreciate the fact that a small addition to their expense this week for amusement and recreation, while not felt by them, will assist in doing incalculable good. A correspondent has written to the *Echo* to suggest the extension of the aid of secular places for the Hospital Sunday Fund. Urging the adoption of such a system as prevails in Paris, before the close of the Salon, he writes—"Surely, with us the governing bodies of the Royal Academy, Grosvenor, Royal Institute, and all other galleries could hardly refuse a day or more to appointed lady collectors outside their several turnstiles—days of promising harvest to a great and public need."

INTRA-OCULAR MUSCLES OF MAMMALS.

MANY problems of a difficult nature present themselves in the study of the physiology, histology, and anatomy of the intra-ocular muscles. To some of these Mr. W. H. Jessop has directed his attention, as a paper read before the last meeting of the session of the Royal Society shows. The relationship that evidently obtains between the different groups of muscles themselves as well as to other motor functions specially interests the physiologist; and in this field the aid that disease affords is certainly of considerable value; experimental investigation also promises to throw light on the subject. Mr. Jessop has brought forward arguments to show that the fifth nerve is concerned in some of the functions of the pupillary and ciliary muscles. The pupil contracts to its utmost under direct stimulation of its muscular tissue by eserine, whilst atropine is capable of producing the greatest amount of dilatation of this structure. It appears that the action of the antagonistic agents is the same on the ciliary muscle. The intra-ocular muscles are believed to have similar anatomical, histological, and physiological actions, which their associated action in the act of accommodation would tend to support. The pupil not only contracts when the ciliary muscle does so, but also dilates when the latter relaxes; the latter act, Mr. Jessop states, is carried out through the intermediation of the long ciliary nerves from the nasal branch of the fifth. The ordinary light-reflex of the pupil takes place through the agency of the third nerve; and the cervical sympathetic, as the inhibitory nerve, causes dilatation of the pupil. In mammals

the two chief motor functions of the pupil are thus separated; whereas in birds, possessing voluntary control over the irides, this is not so, for the cervical sympathetic has no power over the pupil, the nerve causing dilatation being the fifth. Mr. Jessop draws a clear distinction between the modes of action of cocaine, eserine, and atropine on the neuro-muscular intra-ocular apparatus; the first of these agents acts on the terminations of the cervical sympathetic in the pupil, and probably of those of the fifth in the ciliary muscle; whilst, as above mentioned, the action of the other two drugs is on the muscular tissue directly. Hence it is that, even after section of all the nerves going to the intra-ocular muscles, atropine and eserine can cause further dilatation or relaxation and contraction respectively.

DR. OLIVER WENDELL HOLMES AT CAMBRIDGE UNIVERSITY.

ON the 17th inst., in the presence of a large and enthusiastic assembly in the Senate House at Cambridge, the honorary degree of Doctor of Letters was conferred upon Dr. Oliver Wendell Holmes. The public orator in presenting Dr. Holmes to the Vice-Chancellor, characterised him as one who combined enthusiasm for science with distinction in literature, one who "Phœbo ante alios dilectus" had received more than one gift of Apollo, the gift of skill in the healing art as well as the gifts of eloquence and soul. In allusion to the death of Addison, of which that day was the anniversary, the orator said that the language of eulogy once applied to that writer might appropriately be transferred to Dr. Holmes:—Haud ignobili poetæ, in oratione soluta contexenda summo artifici, censori morum gravi sane sed et perjucundo, levioribus in argumentis subridenti suaviter, res etiam serias lepore quodam suo contingenti." Addison, however, had died in the forty-seventh year of his age, whereas Dr. Holmes was nearly fifty when his fame as a writer burst out into a fresh brightness like that of the Indian summer—"ubi in ipso autumno novus refulget æstatis splendor." The orator concluded in these words:—"Videor mihi vatem quendam canentem audivisse, illum cujus in corde æstas æterna floreret, non vocandum esse senem. Equidem juventutis perpetuæ fontem illum quem trans æquor Atlanticum Hispanorum nautæ frustra quærebant, nautam hunc feliciorem, non fabulosas inter insulas sed Academicæ juventutis in amore perpetuo, in amore mutuo, invenisse crediderim. Trans occidentis amplum illum sinum, levi phaselo vectus, diu naviget; nautili illius ritu, quem versibus tam pulchris descripsit, indies 'per ampliora ad altiora' tendat. Suam Academiam, per tot sæcula feliciter conservatam, intra paucos menses carmine sæculari iterum celebret, diuque superstes ipse exornet; nostræ denique Academiæ honoris causâ adscriptus, diu et nostrum et totius litterarum reipublicæ ad fructum floreat, vigeat, valeat, litterarum doctor, Oliver Wendell Holmes."

SPECIALTIES IN PARISIAN HOSPITALS.

Le Progrès Médical (5th inst.) complains that, in consequence of inadequate recognition by the Faculty of Medicine, the practice and teaching of pediatrics, dermatology, laryngology, otology, and other special departments of medicine and surgery are very imperfectly provided for in the French capital—so much so, indeed, that French students who desire to perfect themselves in special subjects are compelled, at great expense and inconvenience, to cross the Rhine and study in Vienna or Berlin. The admission of German superiority is a proof of candour which, coming from a leading French journal, possesses the charm of novelty and bears the stamp of truth, which it is very creditable, but cannot be pleasant, to avow.

THE NIGHTINGALE FUND.

THE report of the fund of the Nightingale Home or School for Nurses at St. Thomas's Hospital, for the year 1885, has been recently published. From the opening of the school in June, 1860, to the end of 1885, a total of 833 candidates have been admitted, and 494 have left the school, after completing a year's training, as certified nurses. There were forty-five probationers admitted during the year, making, with thirty-two who remained from 1884, seventy-seven who received instruction. Twenty-seven probationer nurses were entered on the register as certified nurses after completing their year of training, and of these eleven were lady probationers and sixteen nurse probationers. Nineteen resigned or were discharged as unsuitable for the work, this number of failures being somewhat above the average; want of physical strength is said to be the principal cause of this failure. In the early part of the year an outbreak of an epidemic character occurred among the inmates of the home, traceable to some defects in the structural condition of the building; steps were taken by the governors to remedy this evil, which were successful, and no serious results ensued. Three nurses who had been trained in the school went out to Egypt, where they did valuable work. From the further experience there gained, the opinion is expressed that it is only in fixed hospitals (or hospital ships) used for severe cases, and under a superintendent of nurses, that trained female nurses can be advantageously employed. A note is also made as to the satisfactory progress of the training school at St. Marylebone New Infirmary, where there were twelve nurses undergoing training. From the fact that amongst the expenditure of the year £140 14*s.* is put down as a contribution to the expenses of this training school, it would appear to have a very close connexion with the St. Thomas's school, if it is not a direct offshoot. The fund shows a balance in hand amounting to £1829 19*s.*, after the payment of all expenses, including that of "training hospital nurses"—£1430 7*s.*, a large item. This school has done a great deal in the training of nurses who have joined the National Nursing Institution; the good work of these is well known and highly appreciated amongst the sick poor of many of the worst districts of London. We should like to see a home established in connexion with this hospital where trained nurses could be obtained for work amongst the upper and middle classes, similar to those formed in connexion with the nursing schools of St. Bartholomew's, Guy's, the London, and other hospitals.

OVARIOTOMY IN RUSSIA.

DR. MATVEEFF has published a large amount of information on the subject of ovariotomy in Russia. The first operation in the country was performed by Vantsetti in Kharkoff in 1848, but was attended with a fatal result, Professor Krassovich being the first to perform a successful case in 1862. Altogether the author has collected accounts of the work of ninety-six Russian surgeons. The total number of operations was 696, of which 213 ended fatally: this includes 98 double cases with 32 deaths, 16 pregnant cases with 2 deaths, 50 dermoid cyst cases, only one of which was unsuccessful, and 42 cases of malignant tumour of the ovary, of which 25 were fatal. The ages of the patients varied from fourteen to sixty-eight. Of the pregnant cases, one was as early as the second month and one as late as the ninth; of the 16, 6 miscarried, and 2, as stated above, died. Secondary ovariotomy was performed six times, only one of these cases being unsuccessful. Most of the fatal cases were due to peritonitis; of the total number of deaths (213), this accounted for 133, collapse for 14, exhaustion for 12, and internal hæmorrhage for 10. The general percentage of deaths was about 30. That of different operators who had a record

of 25 or more cases varied from 42·9 to 8·8 (Slavianski) and 7·7 (Rein.) According to a letter by Prof. A. Y. Krassovski, which is published in Sir Spencer Wells's work on Ovarian and Uterine Tumours, it is stated that up to 1882 302 cases had been performed by Russian surgeons, with a mortality of 44 per cent. Dr. Matveëff is to be congratulated on his later and more extensive statistics, which show that Russian operators are becoming more and more successful in their ovariotomy results. As to the places in which the operations were performed, nearly all were done in university towns; thus, St. Petersburg claims 294, Moscow 110, Kieff 59, Warsaw 52, Kharkhoff 40, Kazan 28, Dorpat 25, and Helsingfors 4. Of the remaining 84, 46 were performed by Dr. Kuznetski in Nijni-Tagilski in the province of Perm, and 18 by Dr. Ikavitz in Tambova.

THE ANTI-FAT CRAZE.

THERE is inconceivable folly in the fear of fatness. We do not for a moment deny that it is possible the organism may be too heavily packed with adipose tissue, and that the action of its several parts may be hampered by this encumbrance, while as a whole it is needlessly burdened; but this is a totally different matter from the fatness against which the fears of the multitude are, for the most part, unreasonably directed. There is not the least physiological connexion between the accumulation of fat and fatty degeneration. As a matter of fact, what is known as "fatty degeneration" occurs more frequently in those who are lean than in those who are "fat" in a popular sense. It is therefore a misconception to suppose that fatness is in itself a disease. It only becomes morbid when, by mechanical pressure, fat impedes the functions of the organs, or by weight it unduly burdens the body so as to exhaust the strength or make too large a demand on the resources of force and vitality. Unfortunately the true nature of the objections to fatness are not explained, and misconception is rather confirmed than removed by the prevailing mode of urging arguments against "fat" and in favour of remedies by which it is proposed to get rid of it. Practically speaking, it is idle to suppose that fatness can be certainly prevented by dieting. There are many ways of fat-making, and those persons who have a tendency to its production will make fat however they are fed—in truth, almost as rapidly on one class of diet as on another. There are idiosyncrasies which may in a limited number of instances be taken advantage of to check the tendency to form fat, but these specialties of chemico-nutritive function are by no means common; and, speaking generally, it must be said that, except by starving the body as a whole, fatness cannot be prevented. The exceptions to this rule are chiefly such as may be explained on the principle of a special tissue appetite. Thus, for example, a man whose muscular system has been healthily developed somewhat in excess of the other parts of his organism may have what might be called a muscular-tissue appetite of such voracity that it will, so to say, seize upon the bulk of the nutriment supplied to the blood and make muscle regardless of what may be left for the nutrition of nerves, &c. Such a person will lose fat without growing thin, so far as muscle is concerned, by a mere reduction of diet, without reference to the kind of food cut off, so that the latter do not chance to be essential to muscle nutrition. In the same way, though with different results, a "nervous" person, in the popular sense—that is, an individual whose nervous system is in perpetual activity, working incessantly and feeding voraciously,—may consume so much of the food supplied for the body as a whole that only nervous tissue is nourished and the rest of the body languishes. This is an instance of growing thin while feeding well, and it is the converse of the process by which, in another class of persons, growth of muscle persists in spite of a reduced diet. There are, in this way, persons whose specialty it is to make adipose tissue, and they will wax fat even when muscles, nerves, and the higher parts of the organisation are relatively in a condition approaching starvation. These and a score of other matters have to be taken into account when calculating the probabilities—or rather the improbabilities—of success in the endeavour to diminish the fatness of any individual by a system of dieting. As regards the use of drugs against fats, setting aside such obvious modes as robbing the blood of its proper nutriment by purging and nauseating, we do not believe it is practicable to prevent the formation of adipose tissue or even to promote an elimination of fat by the use of medicines, unless it be by correcting some error in the chemico-vital processes of the organic economy, to which a particular remedy may, as a temporary expedient in, here and there, a suitable case, be intelligently directed. Measures against fatness are, from the very necessities of the enterprise and the conditions under which it must be carried out in the great majority of instances, predestined to failure. It would save a deal of disappointment, and a great many incidental injuries to health might be avoided, if these facts could be more generally understood; and we think medical practitioners generally may be fairly asked to state and explain them.

MASSAGE IN SCIATICA.

PROFESSOR MAX SCHÜLLER of Berlin is convinced (*Deutsche Med. Wochensch.*, No. 24) of the superiority of massage over other measures employed in the treatment of sciatica, and relates his experience of fifteen cases—all in males, and, except in one or two instances (which were traumatic), due to exposure to cold. Most of the cases were dealt with from the first by massage; but in a few instances electricity, vapour baths, &c., had been fruitlessly employed prior to coming under his care. The *modus operandi* is as follows. The patient lies on the unaffected side with knees and hips slightly flexed. The course of the sciatic nerve is rubbed from below upwards, partly with both thumbs, partly with the ball of the little finger or thumb; sometimes struck with the closed fist, sometimes the muscular mass over the nerve pressed and kneaded with both hands. The pain evoked by these manipulations soon passes away, and after a short time becomes less and less at each sitting. The neuralgic pains very soon abate, diminishing after a severe and painful massage, then recurring with less severity, and gradually disappearing entirely. The power of walking improves after each sitting. On an average the treatment lasts about two weeks and a half, but in one case nine days, and in several from ten to fourteen days sufficed. One patient abandoned the treatment after five days, owing to the pain caused by it, and tried without relief a fortnight's course of electricity and vapour baths; he then returned to the massage treatment, and was cured in two weeks and a half.

SMALL-POX v. VACCINATION.

DR. FAIRLIE and DR. M'VAIL have very kindly entered into a newspaper controversy with the anti-vaccinationists in the *Glasgow Herald*. We are disposed to doubt whether such controversies ever convert the real anti-vaccinator; but those who are open to reason cannot fail to be convinced by the extraordinary facts showing the enormously reduced mortality of those vaccinated compared with that of those unvaccinated, and the practically absolute immunity of those who are successfully vaccinated and successfully revaccinated. Dr. Fairlie seems in this controversy to have given some sanction to the practice of making one vesicle, as against three or four. This is to be regretted. It is clear that the protection is in the ratio of the number of scars.

The experience through which Zurich is passing might well make the anti-vaccination philosophers pause. In Switzerland, from very doubtful notions of liberty, the Federal Council made compulsory vaccination a cantonal affair instead of a federal one, as it had been before. Most of the cantons were wise, and kept to compulsory vaccination; but in Zurich they were extra-wise, and repealed the compulsory vaccination law. This was in May, 1883. In that year, as in 1882, the deaths were *nil;* in 1884 the deaths rose to eleven; in 1885 to seventy-three; in 1886, for only three months the deaths are eighty-five. *The Times* correspondent says the law will be re-enacted. Of course; the door will be locked again, but the steed has been stolen. We doubt, however, whether anything but small-pox will preserve the equilibrium of some minds on this subject. It is a great teacher. The correspondent, quoting statistics lately published by Professor Durrant, compares the mortality from small-pox in twenty-one German towns in 1885, having an aggregate population of 4,306,933, and under compulsory vaccination, amounting to twenty-seven, with the mortality in fifteen French towns, with a population of 4,200,840, for the same year, amounting to 806, or thirty-two times more than in the larger population.

RADICAL CURE OF VARICOCELE BY EXCISION.

Il Bullettino of the Royal Academy of Medicine of Genoa (No. I., 1886) reports a case in which Professor Ceci successfully treated a large left varicocele by excising the dilated spermatic venous plexus. The patient, aged twenty-two, suffered great inconvenience in consequence of the enlargement. Under chloroform, an incision two and a half inches long was made on the left outer side of the scrotum down to the vein, the distension of which was maintained by an assistant exercising pressure at the external abdominal ring. With a director, the vas deferens and the spermatic artery were carefully isolated from the vein, which was secured with two catgut ligatures at the abdominal ring and near the testicle. The varicose venous plexus was then excised. The skin wound was closed with a catgut suture, a drainage-tube having been placed in the lower angle. On the eighth day, when the dressing was changed, there was some œdema of the scrotum; this part as well as the inner surface of the thigh was the seat of carbolic eczema, and carbolic necrosis had attacked the edges and the bottom of the wound. These symptoms disappeared under borax and iodoform, and the patient made a perfect recovery. Professor Ceci considers that the technical progress in operations for varicocele, due to the influence of aseptic and antiseptic precautions, justifies preference for excision of the vein over difficult and complicated methods.

POISONED BY WILD FLOWERS.

ABOUT a fortnight since a little girl, aged seven years, died at Glasgow, as alleged, from having sucked the bloom of some poisonous wild flower. The child had been taken on a Sunday-school excursion into the country. During their ramblings wild flowers were gathered, and posies were arranged and garlands woven, as is the wont with children set free from the care and discipline of schools and allowed to roam fancy free in meadows and by hedgerows. In their delight at nature's fairest gifts, little did the denizens of the big Scotch town dream of the poison that lurks within the spathe of the cuckoo-pint (Arum maculatum), or in the clusters of purple blossoms of the woody nightshade (Solanum dulcamara). In fact, the flower of this plant is so like in form and arrangement to that of its innocent first cousin, the esculent potato, that we can understand how a knowledge of the harmlessness of the culinary tuber may have suggested a riskless indulgence in the flowerets of the former. In these days of School Board exaction, is it too much to ask that our children should be instructed, if only in simple fashion, in the broad principles of botany and zoology, and taught how to recognise the plant that nourishes and the one that kills—the harmless snake and the poisonous adder? It is not necessary to go into technical details and to use harsh scientific words to instil into a child's mind that which may be of good service to it when brought in contact with the floral beauties of spring and early summer, or with the berry clusters of a later season. What could be more interesting to a hard-worked, brain-wearied little wanderer in God's garden than to learn the way to recognise the difference between the garnishing parsley and its deadly relative whose name is the antithesis of him that is wise, or its still more poisonous effigy, the classic hemlock, growing in shady nooks. We might mention a hundred other instances—e.g., the creeping hairy bryony, with its festooned wreaths of scarlet berries, hard by its rival, the common tamus, with leaves of shining green, growing bronzed and sombre as the autumn of its vegetative life approaches. We could tell that the simple dropwort, or spiræa, has no right to have its title disputed by the water dropwort or the hemlock water dropwort, with which it holds no natural affinity. We could warn against the perfidy of the gaudy foxglove and the sedate but deadly nightshade, and so on; but enough has been written to merit the sympathy of our Board of National Education, and to make them consider that the fields around us are the true fields of learning.

THE MARY WARDELL SCARLET FEVER HOME.

THE first annual meeting of the friends and subscribers of this Home took place on Friday, the 18th inst., at 32, Sackville-street, Piccadilly. Sir J. Risdon Bennett was in the chair. Sir Edward Sieveking, the Rev. J. F. Kitto, and others spoke in support of the institution. In the fifteen months during which it has been open 138 patients have been received—namely, 82 from their own homes, 34 from the London Fever Hospital, 12 from the Metropolitan Asylums Board Hospitals, and 10 from other hospitals. The patients included 16 children of the upper class. Mr. Kitto said that several of his own children had enjoyed the benefits of the Home; one servant, a kitchen-maid, contracted the disease in a mild form. All the cases have done well, and all have expressed a high sense of the comfort and care they received. The terms for ordinary patients are 15*s.* weekly, 10*s.* for children; the terms for ordinary patients are £3 3*s.* a week. More subscriptions and donations are urgently required to complete and maintain this most benevolent work.

RADICAL OPERATION FOR HERNIA.

AN improved operation for the radical cure of hernia has for some time past been practised by Drs. Svensson and Erdmann, surgeons to the Sabbatsberg Hospital at Stockholm. A ligature is applied to the neck of the hernia, and the sac is cut off below the ligature, the contents being previously examined by means of an incision into the sac and returned; or, if only omental, excised together with the sac. In congenital hernias the upper part of the sac only is removed, and where the large bowel is included in the hernia and adherent to the sac wall, this, after being separated from the surrounding tissue, is returned, together with the large intestine, and the rents of Poupart's ligament united by sutures. The dressing employed is iodoform and boracic acid, the wounds being washed with sublimate solution. Since this has been substituted for carbolic gauze, abscesses which used to occur frequently, have become rare. Of the forty-eight cases thus operated on, none of which were selected, thirty-eight were permanently cured—at least no return of the hernia occurred within six

months; and in the cases where a return did take place, which amounted to 20 per cent., the condition was very much less painful and distressing than it had been previous to the operation. The Sabbatsberg Hospital has now been opened six years and a half, and during that time 300 cases of hernia have been admitted, about 200 of these being operated on with the knife; a milder procedure, consisting of alcoholic injections, being employed in most of the earlier cases. Not a single case proved fatal, though some of the hernias were very large, some reaching within three or four inches of the knee.

THE HYGIENE OF THEATRES.

GIVEN a spacious theatre, crowded during an evening performance for a period of hours, what is the difference of the effects on its atmosphere produced by the electric light or by gas, particularly as to the temperature and the generating of carbonic acid? Such is the problem which Dr. P. Renk, Professor of Hygiene at Munich, has just set himself to solve. Taking the Theatre Royal of that city, which is lighted by 1400 lamps on the Edison system, he tested the two kinds of illuminants, with the following results: During a representation which lasted from 5.30 P.M. to 10.15 P.M., and which was witnessed by 1790 people, he found that while the rise in temperature in the pit was 11·1° Centigrade with gas, it was only 7·7°, also Centigrade, with the electric light; and that in the upper gallery it was 10·7° with the former, and not more than 7·4° with the latter. As to the increase in the production of carbonic acid, the results were equally important. In the pit it was as 2176 with gas to 1221 with the electric light, and in the upper gallery as 2855 with the first to 1430 only with the second.

THE NEW YORK POST-GRADUATE SCHOOL.

THE Faculty of the New York Post-graduate Medical School have entered upon the fifth year of instruction with the record of a highly successful period behind them, and with increased facilities for the future. No undergraduates are admitted, and no degrees are conferred, but the school is open to all legalised practitioners, and it is available for the young graduate who wishes to acquaint himself with the practical duties of his profession, or for older practitioners who are desirous of taking up some special branch of medicine or who wish to familiarise themselves with modern advances in diagnosis and treatment. The instruction is given by means of clinics, subjects, and specimens. There are no lectures except clinical ones, and no demonstrations without subjects and specimens. It may be safely said that no institution in America designed for graduates in medicine is so completely organised in all its branches, has such accommodation for patients and for instruction, or is so fully equipped with the appliances requisite for each special course as this one; and it is to be hoped that the anticipations of the managers respecting the future prosperity of the school may be fully realised.

BRIGHT'S DISEASE WITHOUT ALBUMINURIA.

A SUBJECT which, it may be remembered, was brought prominently under notice by the late Dr. Mahomed—viz., the occurrence of renal disease without the symptom of albuminuria—was discussed by M. Dieulafoy at a meeting of the Paris Hospitals' Medical Society on the 11th inst. (*Le Progrès Médical*, No. 25). He described four cases, which exhibited for many weeks, or even months, some of the most marked symptoms of Bright's disease, such as vomiting, oppression, headache, œdema of the ankles, the "bruit de galop," itching, digiti mortui, ocular and auditory derangements, and a new sign termed by M. Dieulafoy cryæsthesia—a sensation of extreme coldness limited to the extremities, especially the lower limbs, or to the knees. In not one of these cases was a trace of albumen found in the urine except during the last days of life. Such cases were contrasted with others of so-called "physiological albuminuria." As a means of diagnosis M. Dieulafoy suggests a test which is obviously inapplicable for clinical purposes. It is founded on Bouchard's observation that normal urine is a toxic agent to such a degree that, injected into a vein of a rabbit's ear, it will produce a fatal result when administered in the proportion of 50 cubic centimetres per kilogramme, whereas a much larger quantity (150 and even 285 cubic centimetres) of the urine of Bright's disease is required to produce the same result.

THE LATE PROFESSOR v. GUDDEN.

IN speaking of the melancholy event of the 13th inst., the *Münchener Medicinische Wochenschrift* of June 15th says:—"The death of v. Gudden is an irreparable loss to science as well as to the university; in him we lose one who indisputably ranked among the foremost of modern psychiatrics, one of the most brilliant ornaments of our medical faculty, who as a teacher was esteemed on all sides for his talent as well as for his amiability, and who was a most zealous and energetic associate of our medical societies." Dr. v. Gudden was born at Cleves in 1824, and studied at Berne, Berlin, and Haller. He took his doctorate in 1848, and was appointed superintendent of the Asylums for the Insane at Werneck in 1855. In 1869 he was made Professor of Psychiatry at Zurich, and in 1872 was transferred in the same capacity to Munich.

CHOLERA INTELLIGENCE.

THE cholera intelligence from Italy is this week the reverse of reassuring. It is true that, though the disease is still maintained at Venice and at Bari, the daily number of cases and fatal attacks has undergone a diminution, but still the infection has now clung to those places for a lengthened period, and such sanitary precautions as may have been adopted have failed to get rid of a danger which steadily increases with the approach of the hotter months. And not only so, but some further extension of the area infected has taken place. To the north, cholera has appeared at Codigoro, in the province of Ferrara, on the low-lying flats to the south of the estuary of the river Po. So also, two cases and a death are reported from Udine, the frontier town between Austria and Italy. This is not the first appearance of the disease there this year, and the occurrence gives rise to some fear that there may be a tendency for a diffusion in the direction of Austria and Hungary. Trieste is also, in so far as the imposition of quarantine restrictions is concerned, still regarded as an infected port. As regards the south, no new locality is known to have been invaded, but the cholera returns, which had ceased as regards Brindisi, are again issued, two fatal attacks having been reported on the 20th and the 21st of June.

LYMPHADENOMA OF THE INTESTINE WITH LEUKÆMIA.

M. MATHIEU reported at the last meeting of the Paris Anatomical Society the case of a man, aged sixty, who had suffered from uncontrollable diarrhœa for five or six months, with glandular enlargements in the groin and axilla. He was very cachectic, and anasarca was present. The blood was examined several times without any signs of leukæmia being detected. At the necropsy the solitary glands were found much swollen and of a pearly white colour, Peyer's patches being healthy. The mesenteric glands were much enlarged, also the spleen, the liver and kidneys being healthy. No tubercle was found.

THE DWELLINGS OF THE PEOPLE.

THE Mansion House Council on the Dwellings of the People have again, in their latest report, drawn attention to some of the defects in our municipal system, which, in spite of the ample exactitude of law, continue to impede the advance of sanitation in the more crowded parts of London. They have little to say against the law as it stands, much in its favour. The difficulty lies in the weakness of the executive as represented by the inspectors and medical officers, but, above all, in the personal and proprietary interest of vestrymen in the dwellings whose condition is in question. In spite of the hindrances which their work has thus encountered, the Council have been able, through their voluntary aid committees, to do much for the improvement of insanitary dwellings. In order to secure still further the accomplishment of this very desirable object by the official sanitary staff, they suggest that certain obvious reforms should be adopted in the organisation of that body. With regard to inspectors, the number of whom at present varies from 1 in 50,000 to 1 in 100,000 of the population, they rightly assert that they are absurdly few, that a stronger guarantee of special sanitary education than is now provided should be required of them, and that they should follow no other calling. In speaking of medical officers, they draw attention to the fact that the hands of these gentlemen, as well as of the inspectors, are apt to be tied, and their reforming zeal discouraged by the opposition of the vestrymen, to whom they are responsible. The Council accordingly advise, with much justice, that the Local Government Board should be required to confirm the appointment or removal of medical officers and inspectors, without, of course, prejudicing the right of the vestries to elect their own officers subject to that authority. Vestrymen, according to the report, are frequently found to be very indifferent guardians of the public health. Their fitness for office in other particulars, indeed, is in some, perhaps in many, cases but little regarded by their constituents. We are well aware that there are also many localities where public intelligence is more careful in its selection, but the fact that well-informed parochial oversight is apt to be most wanting where it is most required, in the poorer districts, is itself evidently suggestive of the need that the sanitary service should be under a higher central control.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

AT the approaching meeting at Birmingham, commencing on September 1st, the organising committee of Section A has arranged that a special discussion shall be held, jointly with Section D, on the physical and physiological theories of colour-vision. The discussion will be opened by Lord Rayleigh, and Dr. Michael Foster will also take part in it. Persons who wish to contribute papers bearing on the subject of discussion should send their names to the recorders of Sections A or D, at 22, Albemarle-street, W., not later than August 1st.

PROVISION AGAINST INFECTIOUS DISEASE.

A RECENT occurrence in Darlington should serve as a warning to all towns that are without a machinery sufficient for dealing with cases of infectious disease. Local authorities frequently neglect to make complete provision until disease has appeared, and even threatened to assume serious proportions. So in Darlington there was a hospital for the reception of infectious cases, an ambulance to remove the sick, but there was no horse to be used in connexion with it. A man who had been staying at several lodging-houses in the town was attacked with small-pox, and being practically turned out from the last of these places on the ground that he was "not all right," he wandered about until he fell down in the Skinnergate. There a crowd collected round him, and he remained until Dr. Manson was called, and under his instructions the ambulance was sent for; but owing to the difficulty of obtaining a horse the man remained for an hour and a half in the street, exposing many people to serious risk. It is more than likely that the economy which prevented a horse from being kept in readiness will cost a larger sum of money than would have been thus spent, and cause some loss of life. The subject was discussed at a meeting of the board of guardians on Monday, when a statement was made by the master of the workhouse that a nurse in this institution had contracted small-pox from another case of this disease which had been admitted some three weeks before.

HISTORY REPEATS ITSELF.

THE reputed discoverer of a new fact or idea is probably never the first to have made the discovery, or even to have formulated it. In the world of ideas, as in that of material, a continuity can be perceived by which new ideas are evolved from old ones, as new forms of life are the children of ancient forms. Hence it is not surprising to hear that to M. Pasteur does not belong the credit of discovering that zymotic diseases are due to germs. It appears that more than a century and a half ago Dr. Goiffon wrote a work on the origin of the Plague, in which he advanced the theory that the disease was dependent on minute insects or worms, which had none the less a real existence, though they were then beyond the powers of the microscope to reveal. Dr. Goiffon also had something to say on the process of infection, which he likewise considered to be the work of minute living creatures that conveyed infection in a latent condition from one place to break out afresh in another. Did not Goiffon get the idea from some still more ancient master?

SEWAGE FARMS NEAR PARIS.

ON former occasions we have pointed out the hostility with which all propositions to drain direct into the sewer have been met by the Parisian population. Custom and prejudice, united with the more scientific objection that the sewers of Paris are only fit to receive rain-water, have prevented the advocates of the "tout à l'égout" from realising their proposals. But now the opposition has extended to the districts outside Paris. One of the worse features of the drainage scheme is that the main sewer falls into the river Seine, which is already very foul. To avoid further pollution it is proposed to enlarge considerably the sewer farm of Gennevilliers, and to devote a portion of the forest of St. Germain to the purification and filtration of sewerage-water. For this purpose an official Commission, consisting of members of the Paris Municipal Council and engineers of the town, went to visit the districts in question. On landing from the river steamer at Bougival, the Commission was met by the mayors and municipal councillors of the communes of Rueil, Chatou, Croissy, Bougival, le Pecq, Marly, le Vésinet, and other places, who all energetically protested against any extension of the sewerage farms. When the Commission reached the forest of St. Germain they found a crowd of some 2000 persons waiting for them. These demonstrators had inscriptions written on sheets of paper or squares of cardboard, stating that they strongly objected to the project. Some demanded that the sewer should be prolonged to the sea. The greatest excitement was displayed, and many ladies participated in the manifestation; some even had their written protestations suspended from their necks. For five hours the crowd dogged the footsteps of the Technical Commission, who were only too glad, after

this hostile reception, to return to Paris. It will now be more difficult than ever to bring the vexed problem of the disposal of sewage to a satisfactory conclusion. In spite of the reclamations made by the demonstrators, Paris is too far inland to drain into the sea; evidently the suburban inhabitants will not tolerate sewerage farms, and, of course, it is against every sanitary law to allow a compact population of 2,000,000 people to drain into a small river like the Seine. Under all these circumstances Paris seems indicated as a town which should have a double system of drainage. Rain-water might continue to flow through the present large and defective sewers into the Seine; but sewage proper should be collected in a small separate canalisation, conveyed out of town, and there treated in hermetically closed tanks and reservoirs. Such a solution of the difficulty would probably not occasion any popular outcry or opposition.

"FAITH-HEALING" DISCUSSED.

ANY who may be interested in "faith-healing," whatever their views, will do well to look through an article in the *Century* for this month, in which the subject is carefully and impartially examined. Other systems in which the influence of will plays a part, assisted by an element of faith in the medium of its action, receive due attention. Miracles reported to have occurred in recent times at the hands of faith-inspired persons are compared and contrasted with those recorded in Scripture. While we do not care to accept as proof every diagnosis of disease related by the author in cases of "mind-cure," we agree with him that this doctrine implies no real miracle, but the tonic influence of an awakened will and hope in the sufferer from functional disease, and such disease only. The discussion is conducted in a moderate and tolerant spirit, and its manner and matter are alike calculated to adjust the focus of public opinion on the topic in question.

WHAT IS COURAGE?

FROM time to time the notion crops up, and finds expression in many of our contemporaries, that death from hydrophobia is due to fright; that the victim of a bite from a rabid dog succumbs because he does not struggle against his fears. As a personal quality, courage may be well known to every individual, but what it is physiologically would certainly puzzle wiser heads than Bacon's to propound. One thing seems to be certain, that this emotional (or is it intellectual?) state has its chief seat in the highest parts of the brain. Probably, not even the advocates of the courage treatment of hydrophobia would gainsay the fact that the chief seat of the morbid process in hydrophobia is somewhere in the brain beneath the seat of courage. Now, it is notorious that the higher parts of the brain can in large measure resist or hinder the actions that take place in the lower. And there might be some reason for asking whether it is not possible for an action or state like courage to influence, either in repressing or augmenting an action, like that of hydrophobia, which takes place below it. Many epileptics are able at the onset of a fit, when this is attended by a warning, to stop the attack either by a mere effort of will, often aided by voluntary muscular contraction with its necessary attendant sensations, or by some direct powerful impression on one or other of the senses. But there is a limit to such powers. No man can permanently arrest the action of breathing, and the same may be said generally of the heart's action. And it is precisely in the neighbourhood of the centres that preside over the action of breathing, the heart, and deglutition, that the morbid process of hydrophobia goes on in its course. If hydrophobia can be checked in its career, the symptoms resulting from strychnia poisoning ought to be capable of voluntary control, for there is a close analogy between the two affections. No; courage is a powerful remedial agent, but it cannot prevail against a germ disease that directly attacks the immediate vicinity of the vital centres, the mere pin-pricking of which, as was shown years and years ago by Flourens, inevitably terminates in death.

THE MICROBE OF RABIES.

THE cause of rabies, which has long been regarded as a vital agent, has hitherto eluded the grasp of the microscopist. We say this notwithstanding the description of its microbe by M. Paul Gibier a few years ago and by M. Fol last year, for bacteriologists and others have not accepted their observations. But Mr. G. F. Dowdeswell has, it appears, distinctly discovered a micrococcus in the nervous tissues of rabid animals that will probably be found to be the cause of the disease (*vide* THE LANCET, p. 1112). There is some difficulty in staining the micrococcus, which is not nearly so minute as Fol made out. We believe that Mr. Dowdeswell is about to attempt its cultivation.

WHAT IS A TEETOTALER TO DO WITH HIS PORT?

THE papers have been all relating the troubles of a good man, Mr. Green, of Bishopswood House, Highgate, with 2500 bottles of port in his cellar, valued at £600, and who finally, and after considering the three courses open to him, as to all men, poured the wine into the sewers. We must all admire the motive that impelled to this action. But the action itself is not so clearly entitled to admiration. The wine should have been given to hospitals. It is allowed to be of use as medicine, and the course must be considered open to the charge of waste. The question in casuistry is not entirely new. A well-known physician is understood to be somewhat perplexed with it. There are instances where the offending alcohol is best thrown into the sewers, and that promptly; but the present is not one of these.

EPIDEMIC DISEASES IN PARIS.

Il Morgagni (June 5th) observes that, whereas in well-administered cities mortality from preventable diseases has been on the decrease in recent years, it has, on the contrary, steadily risen in Paris. This has specially been the case with diseases closely connected with drainage and drinking-water—diphtheria and typhus. Dr. Hertillon has tabulated the mortality per thousand inhabitants, and proved that within the last ten years the percental ratio of deaths from the two diseases named has nearly doubled. Without insular pride, English sanitarians may reasonably congratulate themselves that *all* things are not done better in France.

UNIVERSITIES OF EDINBURGH AND ST. ANDREWS.

WE understand that it is not the intention of Mr. Erichsen to contest the representation of these universities at the coming election. Some months ago he was requested to stand again in the event of a dissolution or of a vacancy occurring, but with much regret declined to do so. There will consequently, we believe, be no opposition offered to the re-election of Mr. Macdonald, the present member.

THE isolation of cocaine, according to Professor Torretti in the *Raccoglitore Medico*, was first effected in the laboratory of the Botica y Drogueria Boliviana by Signor Pizzi in 1857. The research was suggested to him by the celebrated Austrian traveller Tschudy, and Dr. Aquiles Reid of Valparaiso is said to be in possession of Pizzi's confirmatory manuscripts.

FROM the report of the examination made by Colonel Sir Francis Bolton of the water supplied by the several metropolitan water companies during the month of May, it appears that the Thames water sent out by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies exhibited in every case a very marked diminution, as compared with the previous month, in the proportion of organic matter present. Of the water drawn from the Lea, that supplied by the New River Company contained less organic matter than any of the other river waters, whilst the East London Company's supply resembled in this respect the Thames-derived waters. All the waters were clear and bright on delivery.

IN reference to the excessive mortality amongst our troops in Egypt, to which we alluded in our last issue, the *Egyptian Gazette* publishes the following figures:—The Assouan garrison consists of about 3000 men, of whom 250 are under twenty years of age, 660 are from twenty to twenty-one, 1160 are from twenty-one to twenty-three, and 950 are over twenty-three. The deaths during May numbered fifty-two, mostly from enteric fever. Between the 13th and the 16th there were twenty-eight cases of heat apoplexy, from which malady five deaths occurred on the 16th.

THE sum of £2000 has been placed by Mr. George Holt in the hands of the treasurer of University College, Liverpool, to provide, for the next ten years, two scholarships annually, each of the value of £100, tenable for a year. To these the Medical Faculty of the College will nominate senior students who have been conspicuous for diligence and ability during the whole of their previous course, and who it is desirable should continue their studies for another year.

ON May 10th Professor Luigi Vella expired, after two years' disablement by nervous disease. Up to that time he had occupied the chair of physiology in the University of Bologna as a colleague and very intimate friend of the distinguished Ercolani.

THE death occurred last week at Cambridge, in the eighty-eighth year of his age, of Mr. Richard Potter, M.A., L.R.C.P., formerly Fellow of Queen's College, Cambridge, and Emeritus Professor of Natural Philosophy and Astronomy in University College, London.

PROFESSOR KAPOSI of Vienna has succeeded the late Professor Auspitz as joint editor (with Professor Pick) of the *Archiv für Dermatologie und Syphilis*.

TUBERCULOSIS IN CATTLE.

A VALUABLE report has been presented to the Parliament of Victoria by a "Board appointed to inquire relative to the existence and extent in Victoria of the disease in cattle known as tuberculosis, whether its existence is likely to be detrimental to the public health, and what preventive measures should be adopted." The report is fully exhaustive of the subject, comprising sections upon the prevalence of tuberculosis, its communicability, the doctrine of the bacillus, and Koch's investigations concerning it, with statements in support of and opposed to Koch's views, the question whether tuberculosis is a contagious disease, the limited nature of its infective power, the hereditary tendency to tuberculosis and hereditary transmission, the identity of human and bovine tuberculosis, and the question whether the flesh of tuberculous cattle or the milk of tuberculous cows is fit for food. The opinions at which the Board arrived are given in a summary, which, as the result of a prolonged and painstaking inquiry, is instructive and important, besides placing the question in a clear and definite light.

Bovine tuberculosis and human tuberculosis, though differing widely in the general appearance of the lesions which they present after death, and though differing also in a less degree in their history during life, are yet essentially allied to each other; they are produced by the action of the same low vegetable organism, the *bacillus tuberculosis*, which is found in all forms of tubercle, in whatever animal developed. These organisms may be cultivated in the pure state, generation after generation; if such pure cultures, far removed from their original source, be inoculated into susceptible animals, such as rabbits and guinea-pigs, disseminated tuberculosis is set up in the various organs and tissues of the animals operated upon; and in the tubercles so produced similar organisms are again found. These results are invariable; whether the pure cultures are introduced beneath the skin, into the abdominal cavity, or into the anterior chamber of the eye, tuberculosis follows with certainty in all susceptible animals; and even with animals usually insusceptible like results are obtained if a larger number of organisms be introduced, so as to overcome the resistance of the tissues. Moreover, when animals are fed with tubercular matter, whether derived from human or from bovine tuberculosis, a large proportion become tuberculous, and this result is not prevented if the animals be well housed and otherwise well fed. There is also evidence of no slight weight tending to prove that the milk of tuberculous animals, even when the udder is not affected, may induce tuberculosis in other animals to whom it is administered as food; and this, too, although abundance of sound milk or other suitable food is given at the same time. Other evidence, not quite so conclusive, but sufficiently cogent, indicates that the flesh of animals suffering from advanced and widespread tuberculosis may induce tuberculosis in animals fed upon it unless the flesh be thoroughly cooked. It has also been found that if tuberculous matter containing the specific vegetable organisms be suspended in water and repeatedly sprayed into the atmosphere of a chamber in which comparatively insusceptible animals, such as dogs, are kept, tubercles develop in the lungs and sometimes in other organs. Furthermore, when a large number of animals are kept in the same room, but in different cages, some being artificially infected with tuberculosis, and others being simply kept as "control" animals for the purpose of comparison, cases of apparently spontaneous tuberculosis appear from time to time among the "control" animals. The greater the number of tuberculous animals in the room, the more numerous will be the cases of spontaneous tuberculosis; but no "control" animal has been known to become tuberculous until it has been for some months in the infected apartment. The spontaneous tuberculosis so induced affects chiefly the lungs and bronchial glands, and bears a close resemblance to the ordinary phthisis of man.

The specific organisms, or bacilli of tubercle, are present in the sputa of phthisical patients, sometimes in great abundance; and they have been collected from the air issuing from wards containing large numbers of consumptive patients. Phthisical sputa may be dried and powdered and kept in this state for months without destroying the vitality of the bacilli.

Numerous cases are on record in which tuberculosis has apparently been communicated from one animal to another, and from one human being to another when living in close relations with each other. The insidious commencement and the long course of the disease render it difficult to trace such communication. But while the possibility of such direct communication has been sufficiently established, it is also true that exposure to contagion, even for considerable periods, is comparatively seldom followed by the development of tuberculosis. This fact is explained in two ways: Firstly, the specific organisms multiply very slowly, and only when protected from much mechanical disturbance; and they cannot, unless in very exceptional circumstances, multiply at all outside the living body, owing to the narrow limits of temperature within which they flourish. Secondly, they cannot with equal certainty attack all varieties of animals, or even all individuals of the same variety without distinction; thus, guinea-pigs and rabbits are very susceptible, ruminants and men are moderately susceptible, while dogs are comparatively insusceptible. The moderately susceptible animals appear to be secure against the inroads of small numbers of the bacilli

unless they are specially predisposed. This predisposition may be general or local; a general predisposition consisting in some frailty of constitution, often inherited, and a local predisposition generally produced by the effects of inflammation in some organ, weakening its vitality and leaving within it some stagnant or semi-stagnant exudations or secretions, in which the bacilli find a congenial soil for their development. Above all, the occurrence of repeated catarrhal inflammations of the lungs appears to create the special predisposition which is necessary to enable the bacilli to maintain themselves and multiply within the body.

Lastly, heredity certainly plays a most important part in the propagation of this disease. Tuberculous parents often bequeath to their offspring an original frailty of constitution which renders them liable to be infected by the bacilli; and, in the second place, though the truth of this is not well established, it is possible that the germs of the disease may themselves be transmitted from parent to offspring, and, after lying latent in the system for a variable time, may subsequently, under favouring circumstances, wake into new activity.

Numerous experiments have proved that tuberculosis may be transmitted from man to lower animals, and from one lower animal to another. In the necessary absence of experiment, the evidence in favour of its transmission from lower animals to man may appear less cogent; but in the opinion of this Board the evidence is amply sufficient to justify legislative precautions.

These precautions, as embodied in the recommendations of the Board, include the declaration of tuberculosis as a contagious disease, and its introduction into the schedule of the Diseases of Stock Act, so that tuberculous animals may be seized and slaughtered; but it is not proposed to introduce any quarantine regulations. No compensation is to be allowed to owners for the compulsory slaughter of tuberculous cattle; and it is further recommended that a circular letter be addressed to owners of stock, requesting their active co-operation with the Government, so as to limit the prevalence of tuberculosis, and indicating the measures most effective to this end. Further recommendations are made respecting tuberculosis in reference to meat-supply, and dairies, which it is proposed to inspect. There can be no question that the Board have gone to the root of the matter, and it remains to be seen how far it is possible to carry their recommendations into effect in view of the great prevalence of bovine tuberculosis.

DR. RICHARDSON'S LECTURES ON ANIMAL OR VITAL MECHANICS.

LECTURE V.

MECHANISM OF THE HEART.

THE fifth and last lecture of the course delivered on Monday, May 31st, was devoted to the subject of the work of the heart. The circulation through the heart itself was first noticed, and the provision by which it is secured that the heart shall be fed with blood permanently, as the primary organ of the circulation, and in that sense the organ which requires to be served before any muscle of the body, voluntary or involuntary. In the second part of the lecture Dr. Richardson described the movements of the auricles and the ventricles, the diastoles and systoles, and the valvular actions during each series of movements. In this part he explained that he had seen the heart working under two distinct tensions, which he designated as the high or full vital tension and the low or syncopal tension. Under the high or full tension, the volume of the heart is large and the stroke so powerful as to distend the whole of the arterial trunks; under the low tension, the volume of the heart is reduced to fully half that of the high tension, and, although the motion of the auricles and ventricles is still in correct order as to time and method, the propulsion is so feeble that the arteries are not distended. In this minor condition of action the circulation is sustained, as during syncope and catalepsy, but in a passive or negative state, from which the revival is sometimes all but instantaneous, owing to a sudden return of the heart to its full power. In an experimental observation under anæsthesia, the lecturer had actually witnessed in a lower animal this transition in the work of the heart from the low to the high tension. It was the work of a moment, was attended with phenomena resembling a restoration from temporary death to active life, and was due probably to a restored balance of the nervous supplies by which the heart is naturally maintained in equilibrium of motion.

The observation on the equilibrium of motion led to a description of the nervous supplies of the heart; the propelling from the sympathetic source: the controlling, through the pneumogastric, from the cerebro-spinal source. Here Rudinger's dissections of the cardiac nerves formed on the screens beautiful illustrations, rendering the demonstration of a difficult subject extremely easy and practical. From this point the course of the lecture was more thoroughly mechanical. The number of the pulsations of the heart in different animals—in fish, frog, bird, rabbit, cat, dog, sheep, horse—was described, and a few comments made on the remarkable slowness of the heart—40 strokes per minute—in the horse. Then the number of pulsations in man at various periods of life, and at different levels, from the level of the sea up to four thousand feet above sea level, was brought under review, and was followed by a computation of the average work performed by the heart in a healthy adult man. The work was traced out by the minute, the hour, and the day, and was shown to equal the feat of raising 5 tons 4 cwts. one foot per hour, or 125 tons in twenty-four hours. The excess of this work under alcohol in varying quantities formed a corollary to the history of the work of the heart, Parkes' calculation showing an excess of 24 foot-tons from the imbibition of eight fluid ounces of alcohol. The facts relating to the work of the heart by the weight of work accomplished was supplemented by a new calculation, in which the course of the circulation was explained by mileage. Presuming that the blood was thrown out of the heart at each pulsation in the proportion of 69 strokes per minute, and at the assumed force of 9 feet, the mileage of the blood through the body might be taken at 207 yards per minute, 7 miles per hour, 168 miles per day, 61,320 miles per year, or 5,150,880 miles in a lifetime of 84 years. The number of *beats* of the heart in the same long life would reach the grand total of 2,869,776,000.

In the next part of the lecture the sounds of the heart were described and imitated, and the muscular construction, with special reference to the spiral character of the cardiac action, was illustrated on the screen by the electric light from Pettigrew's remarkable series of photographs of dissections of the heart. The effect of the ventricular contraction on the arterial pulses was also illustrated by a series of sphygmographic tracings thrown on the screen, showing the natural pulse tracings and the various deviations from the natural under the effects of alcohol, tobacco, opium, and exposure to extreme cold. The resistance produced by cold was illustrated from the tracing of the pulse of Mr. Fleuss after his immersion for an hour in water at 35° Fahrenheit.

The course was brought to a close with a short summary of a few of the leading topics which had formed the subjects of discourse, and with some practical hints deducible from them.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Harwich Urban District.—The birth and death rates for this district during 1885 were 39·5 and 15·9 per 1000 respectively, and there was a marked absence of any prevalence from infectious diseases; two cases were, however, admitted into the isolation hospital. Mr. Hardwicke, in speaking of disinfectants, places great confidence in one which for commercial purposes is sold under a special name; but something more than a chemical fluid, however trustworthy, is needed for the purposes of a sanitary authority who have bedding &c. to deal with. A new water-supply from borings in the chalk is expected to be delivered into the borough next October.

Hanley Urban District.—This district exhibited in 1885 a death-rate of 3·2 per 1000 below that of the mean for the

preceding five years, the rate being 19·1. But there is room for still further improvement in this respect, for the infant mortality under one year of age still reaches as high a rate as 19·8 per 100 registered births. An attempt has been made to secure a voluntary notification of infectious diseases, and to a certain extent it has been successful; but it is added that three medical men have refused to accede to the request to notify, and since any such objection to report does away with the efficiency of the scheme, we fear that, as in other similar cases, the result may end in failure. Whether the refusal to co-operate was due to the inadequacy of the fee offered or to other causes is not stated. Dr. Walker points out that every district stands in need of a hospital for the isolation of first cases of infection, and it is to be hoped that Hanley will endeavour to deal, by isolation, with all the cases of the infectious fevers with which the authority will become acquainted, and with which it can properly so deal.

Tunbridge Wells Urban District.—From a statistical point of view, Tunbridge Wells has a high reputation. For five years past its annual rate of mortality has only varied between 14·0 and 15·7 per 1000, and in 1885 it was 15·4. The so-called zymotic rate also stood as low as 0·8 per 1000. The only fatal diseases coming directly within sanitary control which took place were 4 from continued fever and 2 from diphtheria. Not much is said as to the sanitary conditions prevailing in the town, but inspections are evidently carried out with care and regularity, and the isolation hospital is systematically used. Thus, 23 cases of mild scarlet fever, and 9 cases of small-pox, the result of imported infection, were all dealt with in this way.

Kendal Urban District.—Kendal, with a population of 13,800, has a death-rate of 18·5 per 1000; but it had not a single death from enteric or typhoid fever during the past year. This certainly affords a satisfactory comparison with previous years that are now well-nigh forgotten; for in five epidemics between 1838 and 1860 the deaths from "fever" ranged from 43 to 117. Since 1860 there has been an almost steady diminution in the mortality of epidemics that have ensued, and with sanitary progress it may be hoped that such mortalities will before long cease. Some of the diminution of death from infectious diseases has corresponded with the provision of the borough sanatorium, which is regularly used, the patients' friends in certain cases making payments towards the cost of maintenance. Indeed, the sanatorium has been so useful that, by Mr. Paget's advice, a second pavilion has been erected, and there are now, in full working order, means for the isolation of two diseases in both sexes. Disinfection is also regularly carried out, 380 articles having been so dealt with in 1885.

Wavertree Urban District.—Hitherto the means of isolation used for this district has been the Netherfield-road institution, but the intended acquisition of this building by the Liverpool Corporation should, as Dr. Harvey points out, lead to the provision of a local hospital belonging to the authority. That may, of course, be arranged jointly with one or other of the neighbouring districts, which need similar accommodation. During 1885, 19 cases of scarlet fever, 15 cases of diphtheria, and 5 of small-pox came under notice; and it needs little more than this record to prove the need that exists for some available means of isolation. General sanitary inspection of the district is evidently carried out, and some of the amendments which are called for are specified in the report. The death-rate for 1885 was 14·8 per 1000, and the birth-rate was 34·0. The children under one year of age died at the rate of 11·5 per cent. of the registered births.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5068 births and 2927 deaths were registered during the week ending June 19th. The annual death-rate in these towns, which had ranged in the preceding thirteen weeks from 29·3 to 17·0 per 1000, further declined last week to 16·8, and was lower than the rate in any week since the third of September, which was the lowest on record. During the first eleven weeks of the current quarter the death-rate in these towns averaged only 18·9 per 1000, and was 3·1 below the mean rate in the corresponding periods of the ten years 1876-85. The lowest rates in these towns last week were 10·9 in Birkenhead, 11·9 in Sunderland, 13·1 in Derby, 13·4 in Brighton. The rates in the other towns ranged upwards to 21·8 in Plymouth, 22·0 in Oldham, 26·8 in Blackburn, and 39·6 in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had in recent weeks declined from 430 to 265, rose again last week to 293; they included 89 from measles, 60 from whooping-cough, 59 from diarrhœa, 35 from scarlet fever, 29 from "fever" (principally enteric), 21 from diphtheria, and not one from small-pox. No death from any of these zymotic diseases was recorded last week in Norwich, Derby, or Birkenhead; whereas they caused the highest death-rates in Portsmouth, Blackburn, Bolton, and Preston, in each of which towns measles again showed epidemic prevalence. The greatest mortality from whooping-cough occurred in Oldham, Preston, and Wolverhampton; and from diarrhœa in Halifax, Blackburn, and Preston. The 21 deaths from diphtheria in the twenty-eight towns included 16 in London and 2 in Birmingham. Small-pox caused 1 death among the residents of London and its outer ring, and not one in any of the twenty-seven large provincial towns. The number of small-pox patients in the metropolitan hospitals situated in and around London, which had been 29 and 31 on the preceding two Saturdays, had declined to 21 at the end of last week; 2 cases of small-pox were admitted to these hospitals during the week, against 5 and 9 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 179 and 216 in the preceding two weeks, declined again last week to 184, and were 57 below the corrected average. The causes of 61, or 2·0 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leicester, Nottingham, Sunderland, Brighton, and in seven other smaller towns. The largest proportions of uncertified deaths were registered in Oldham, Bristol, and Bradford.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had slowly declined in the preceding seven weeks from 23·1 to 20·9 per 1000, rose again to 21·7 in the week ending June 19th; this rate exceeded by no less than 4·9 the mean rate during the same week in the twenty-eight English towns. The rates in the Scotch towns last week ranged from 17·3 and 17·4 in Paisley and Greenock, to 20·8 in Edinburgh and Aberdeen and 24·4 in Glasgow. The 536 deaths in the eight towns showed an increase of 20 upon the number in the previous week, and included 18 which were referred to whooping-cough, 17 to measles, 8 to scarlet fever, 8 to diarrhœa, 5 to "fever," 1 to small-pox, and not one to diphtheria; in all, 57 deaths resulted from these principal zymotic diseases, against 68 and 49 in the preceding two weeks. These 57 deaths were equal to an annual rate of 2·3 per 1000, which exceeded by 0·6 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 21 and 19 in the previous two weeks, further declined last week to 18, of which 15 occurred in Glasgow and 2 in Aberdeen. The deaths from measles rose again last week to 17, from 19 and 10 in the previous two weeks, and included 8 in Edinburgh and 7 in Leith. The mortality from measles in Edinburgh, which has been so excessive since the middle of February last, shows but slight sign of abatement. The 8 deaths from scarlet fever exceeded the numbers in the previous two weeks; 4 were returned in Glasgow and 2 in Dundee. The deaths attributed to diarrhœa, although slightly exceeding the number in the previous week, were 4 below the number in the corresponding week of last year, and they included 4 in Dundee. The 5 deaths referred to "fever," of which 2 occurred in Glasgow and 2 in Edinburgh, were considerably below the average. The death classed to small-pox occurred in Glasgow, and was certified as chicken-pox. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 90 in each of the previous two weeks, rose last week to 93, and were within one of the number in the corresponding week of last year. The causes of 73, or 14 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 26·2 and 20·8 per 1000 in the preceding two weeks, rose

again to 22·9 in the week ending June 19th. During the first eleven weeks of the current quarter the death-rate in the city averaged 25·9 per 1000; the mean rate during the same period did not exceed 17·5 in London and 19·6 in Edinburgh. The 155 deaths in Dublin last week showed an increase of 14 upon the number in the previous week, and included 7 which were referred to the principal zymotic diseases, against 9 and 5 in the previous two weeks; 3 resulted from "fever" (typhus, enteric, or simple), 2 from diarrhœa, 1 from scarlet fever, 1 from whooping-cough, and not one either from small-pox, measles, or diphtheria. These 7 deaths were equal to an annual rate of 1·0 per 1000, the rates from the same diseases being 1·5 in London and 2·7 in Edinburgh. The 3 deaths from "fever" showed an increase upon the numbers in recent weeks, while the fatal cases of whooping-cough were fewer than in any previous week of this year. Six inquest cases and 9 deaths from violence were registered; and 63, or more than a third, of the deaths were recorded in public institutions. The deaths both of infants and of elderly persons showed an increase upon the numbers in the previous week. The causes of 14, or 9 per cent., of the deaths registered during the week were not certified.

CHOLERA IN SPAIN IN 1885.

An official statistical report on the cholera epidemic in Spain in 1885 has recently been issued in Madrid. It appears that the cases reported in the entire kingdom were 338,685, of which 119,620, or more than 35 per cent., proved fatal. These 119,620 deaths were equal to a rate of 7·0 per 1000 of the population of the kingdom, which is more than double the rate from the same cause in England and Wales during the epidemic of 1849, which was 3·0 per 1000. Spain for administrative purposes is divided into 9304 communes. The whole of the cholera epidemic was confined to 2247 of these communes, having an aggregate population of about 6,500,000 persons. The death-rate from cholera in the portion of the kingdom actually invaded by the epidemic was equal to 18·2 per 1000 of the population. It follows that 7057 communes, with an aggregate population of rather more than 10,000,000 persons, enjoyed complete immunity from the disease, so far as appears from the report just issued. No information is given as to the varying mortality from the disease in the large towns of Spain, the statistical unit in the return, so far as detailed figures are concerned, being the commune, the communes making *partidos judiciales*, or subdivisions of provinces. It is evident from the tables that the disease was most fatal in the urban portions of the population, while a large proportion of the rural population escaped attack. The death-rates exceeded 30 per 1000 of the population in the attacked portions of the provinces of Castellon, Valencia, Saragossa, and Ternel. It is worth noting, however, that, so far as the tables afford the means of judging, the largest towns of Spain did not suffer severely from the disease; in the commune of Madrid the cholera death-rate did not exceed 2·7 per 1000, in Barcelona 5·4, in Seville 0·0, and in Cadiz 9·2. The first cases of the disease appeared early in February in the province of Valencia, and the disease lingered in different localities until the close of the year; indeed, it is noted that the last cases of the epidemic were reported towards the end of March in the province of Cadiz. In addition to the proportions of deaths from cholera to the population in the various subdivisions of the country, the report also gives the proportions of deaths to the numbers attacked. Such statistics are generally of very doubtful statistical value, and it is improbable that in Spain the figures are more trustworthy than is usually the case. It has been noticed that the proportion of deaths to cases in the whole country is reported to have been 35 per cent.; it further appears from the tables that in the various provinces the recorded proportions varied from 21 and 23 per cent. in Zamora and Palencia, to 59 in Badajoz and Oviedo, and 100 per cent. in Lugo, where only 16 cases were reported, all of which proved fatal. Without information as to the nature of the machinery by which the statistics of attacks were collected, it would be unwise to base any conclusions on these figures with reference to the varying fatal intensity of the disease in different parts of the kingdom. The publication of this cholera report, with commendable promptness, encourages the hope that the Spanish Statistical Bureau will ere long resume its monthly reports upon the mortality statistics of the whole country, which have now been in abeyance for some time.

HEALTH OF CALCUTTA.

The report of the health officer of Calcutta for the quarter ending March 31st, 1886, shows a low rate of mortality compared with the corresponding period in any of the preceding ten years. The death-rate was 29·7 per 1000 of the population. The reduction has taken place chiefly in fevers, small-pox, cholera dysentery, and diarrhœa; in fevers and cholera the improvement was most marked in February, but the number of deaths began to rise again in March. The health officer considers the low rate from fever in February to have been probably due "to the exceptional dryness, and to the fact that no rain fell." Only four deaths from small-pox were recorded; one of the cases was unprotected, one had been inoculated, and two were not traced.

THE SERVICES.

THE RECENT CAMPAIGN IN BURMAH.

IN a general Order relative to the recent field operations in Burmah received from the Government of India, the Governor-General in Council states that the medical department under Deputy Surgeon-General J. Inch Donnelly, M.D., has proved its complete efficiency under circumstances of considerable difficulty.

The Government of Madras have fully acknowledged the services of the following officers as deserving of notice, and the Governor-General in Council now adds to these commendations an expression of his own appreciation of their services:—Surgeon-General J. Irvine, M.D., Medical Staff, and Surgeon-General M. C. Furnell, Indian Medical Department.

The thanks of the Government of India are given to the following officers and their subordinates for the energetic part taken by them in the equipment of the force:—Surgeon-General C. D. Madden, Medical Staff, and Surgeon-General B. Simpson, M.D., Indian Medical Department.

The name of Surgeon-Major C. Sibthorpe, who was in medical charge of the Headquarter Staff, is mentioned in despatches.

WAR OFFICE.—Army Medical Staff: Surgeon-Major Thos. Henry White, M.D., to be Brigade Surgeon, vice George Scott Davie, M.D., granted retired pay; Surgeon S. Lucas O'Neill resigns his commission.

INDIA OFFICE.—The Queen has approved of the retirement from the service of the undermentioned officers of Her Majesty's Indian Military Forces:—Deputy Surgeon-General William Henry Rean, M.D., Madras Medical Establishment; Brigade Surgeon Christopher Joynt, M.D., Bombay Medical Establishment; Surgeon-Major Richard Thos. Lyons, M.D., Bengal Medical Establishment; Surgeon-Major John Chas. Whishaw, M.D., Bengal Medical Establishment; Surgeon-Major Theophilus Bolton Wright Plunkett Johnston, half-pay, Bombay Medical Establishment. The undermentioned officers have been granted a step of honorary rank on retirement:—Brigade Surgeon John Houston, M.D., Madras Medical Establishment, and Brigade Surgeon Christopher Joynt, M.D., of the Bombay Medical Establishment, to be Deputy Surgeons-General; Surgeon-Major Richard Thomas Lyons, M.D., and Surgeon-Major John Charles Whishaw, M.D., both of the Bengal Medical Establishment, to be Brigade Surgeons.

RIFLE VOLUNTEERS.—3rd Lancashire: Surgeon and Honorary Surgeon-Major John Burns resigns his commission; also is permitted to retain his rank and to continue to wear the uniform of the Corps on his retirement.—3rd Volunteer Battalion, the South Staffordshire Regiment: The undermentioned officer resigns his commission, also is permitted to retain his rank and to continue to wear the uniform of the Battalion on his retirement—Surgeon and Honorary Surgeon-Major John Fraser, M.D.

UNIVERSITY COLLEGE HOSPITAL.—A grand bazaar in aid of the funds of this charity will be opened by the Princess Louise in the grounds of University College, Gower-street, on Friday (this day), and will be continued on the following day.

Correspondence.

"Audi alteram partem."

ELECTION AT THE ROYAL COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—As the bye-laws of the Royal College of Surgeons require me to stand again for election into the Council on July 1st, after two years' tenure of office, I may be permitted to express my hope that the Fellows will continue their trust in me. The Council has met twenty-five times during my membership, and I have attended every meeting. Besides sharing in routine business, I have served on two important committees, one for widening the basis on which the Fellowship may be obtained, the other for considering the question of granting the title of M.D. to Members who have passed the conjoint examinations of the two Colleges. In joining in the work of these committees, I have striven to promote the acceptance of these proposals, which are in my opinion most desirable to bring into operation. By taking part in all discussions, where I believed I could do so usefully, I have endeavoured to instruct myself in the business of the College and to perform the duties entrusted to me. On these experiences I venture to rest my claim for a renewal of the confidence of the Fellows in the coming election.

I am, Sir, yours truly,

Wimpole-street, June 22nd. BERKELEY HILL.

TUBERCLE BACILLI IN ADDISON'S DISEASE.

To the Editor of THE LANCET.

SIR,—With reference to Goldenblum's discovery, will you kindly allow me to add a confirmation of Professor Curnow's observation published in your last week's issue? About three years ago I examined the suprarenal capsule from a case of Addison's disease, which, although presenting no pigmentation of the skin, was in all other respects a typical case. One supra-renal capsule was atrophied; the other, the size of a turkey egg, was completely degenerated, except in one corner, where a little normal suprarenal tissue was seen. After examining a large number of sections, prepared by Ehrlich's method, neither I nor Dr. Dreschfeld, whose demonstrator I then was, could find any tubercle bacilli. At the same time, negative evidence such as this does not prove that the affection is non-tubercular, or that bacilli had not been present at a former period of the disease. Tubercle bacilli are usually found not in old degenerated parts, but at the borders where active changes are still going on. In a caseous giant cell, for instance, as Weigert has insisted on, the bacilli are numerous at the borders, where the nuclei are still proliferating, but few in number or entirely absent in the central degenerated portion. So, in the suprarenal capsule, the stage of activity may have already passed, and with it the tubercle bacilli.

I am, Sir, yours obediently,

Westbourne-terrace, W., June 21st, 1886. ROBERT MAGUIRE.

To the Editor of THE LANCET.

SIR,—While working in the laboratory of the late Professor Cohnheim, in Leipzig, in the summer of 1882, I had the opportunity of examining the suprarenal capsules in a case of Addison's disease. By means of the Ehrlich method I was able to discover numerous tubercle bacilli scattered throughout their substance. I regret that I had no opportunity at the same time of examining the other organs of the body in order to ascertain the presence or absence in them of bacilli. My observation, however, of the presence of the organisms in the suprarenal bodies, though hitherto unpublished, was communicated to the Royal Medical Society of Edinburgh in a paper on the "Bacillus of Tubercle," read by me before the Society in January, 1883. The microscopic preparations I have still, but the bacilli are now no longer visible, the gentian-violet with which they were stained having disappeared during the four years which have now elapsed since their preparation.

I am, Sir, yours faithfully,

ARTHUR H. CLEMOW, M.B.

Waterloo, near Liverpool, June, 1886.

INCUBATION OF TYPHOID FEVER.

To the Editor of THE LANCET.

SIR,—Two children left their home in the country to come to a London boarding-school on Jan. 11th. On Jan. 27th, the younger of the two sickened with typhoid fever. It was then discovered that at the village where they lived there was quite an epidemic of typhoid, and that the water-supply of the house had become contaminated. The school-master at once wished to know at what date it could be definitely said that the elder boy had not contracted the disease. Wishing to be quite safe in my prognosis, I replied that, although it was impossible to say exactly, if he remained quite well at the end of three weeks and a half, dating from January 11th, he would probably escape. The younger boy was moved from the school to a house near, and the master kept a most careful watch over the elder one until the three weeks and a half had expired, at which date he seemed in perfect health. My disappointment was great to find that on February 7th, or twenty-seven days from Jan. 11th, he did not feel quite the thing, and his evening temperature was 100°. Up to this date he had taken his food heartily and was in capital spirits. He later on had troublesome constipation, and died of intestinal hæmorrhage. No other boy in the school contracted the disease.

The following is a list of the inmates of this country house who have caught the fever. Where known, I have stated the latest possible date on which the patient could have contracted the disease; of course it may have been contracted much earlier. 1. Younger boy came up to boarding-school on Jan. 11th; recovered; incubation sixteen days. 2. Elder boy came up with No. 1 on Jan. 11th; died of hæmorrhage; incubation twenty-seven days. 3. A sister left home on Jan. 21st to stay with friends; recovered; incubation nine days. 4. A brother left home on Jan. 14th to stay with friends; recovered; incubation sixteen days. 5. The nurse of No. 4; recovered. 6. Cook, who lived at the country house and stayed there throughout; recovered. 7. A servant, who came up from the country house, and being taken ill was sent to a cottage hospital near, where she was said to be suffering from scarlet fever and sent on to the fever hospital, but on inquiry I found it was a simple case of typhoid; recovered.

I am, Sir, yours truly,

J. LANGTON HEWER, M.B. Lond.

Highbury New Park, N., June, 1886.

WHOOPING-COUGH.

To the Editor of THE LANCET.

SIR,—I had no intention, nor have I now, of denying the accuracy of Dr. Donkin's history, but I wished to point out the acknowledged difficulty of isolation, especially in the convalescent stages, of the exanthematous fevers, and the possibility of infection from some external source, unknown and undreamt of by the medical attendant. I have known the contagion of pertussis to be apparently carried by foul linen, handkerchiefs, napkins, &c., and to result in whooping-cough after the usual period of incubation; and when we consider how easily contagion might be so conveyed, without a suspicion arising before the mind of the medical attendant, I am rather inclined to attribute these cases to some such unwholesome cause than to an exceptional deviation from the general law. With regard to the frequency of whooping-cough as a sequence of measles, I am quite at one with the writer, and have explained in my paper the manner in which this and probably other exanthemata act.

I am, Sir, yours &c.,

Manchester, June, 1886. W. H. BARLOW.

ELECTROLYSIS OF STRICTURE OF THE URETHRA.

To the Editor of THE LANCET.

SIR,—At the same time that I would acknowledge the importance of Mr. Bruce Clarke's courteous criticism of my letter upon the above subject in THE LANCET of June 5th, I would submit that he has not accurately guaged the careful wording of my first paragraph. He believes that it implies that he has used *strong* currents in the electrolysis of stricture. Now I had especially guarded against this inference being drawn, by using comparatives. I described the

currents he employed (10 cells) as being *stronger*, in contrast to those which I had used (3 cells) as being *weaker*. This was my only method of comparison, for I had not the advantage of a galvanometer.

Mr. Clarke takes exception, and rightly, to the expression "burning through the cicatrix." That, I honestly confessed, was the false impression I started with. I began with crude ideas and rough instruments; through the liberality, however, of the Committee of St. Peter's Hospital and the kindness of Dr. Steavenson, these points have been rectified. I would cordially endorse what Mr. Clarke asserts about the strength and the effects of the currents; but I should not like to pass an opinion as yet upon the permanent efficacy of the treatment.—I remain, Sir, faithfully yours,

George-st., Hanover-sq., June, 1886. E. HURRY FENWICK.

LEICESTER AND ITS IMMUNITY FROM SMALL-POX.

To the Editor of THE LANCET.

SIR,—Omitting entirely the question of the value of the vaccination *cordon*, it seems to me that the isolation of small-pox cases pursued at Leicester is as much opposed to the anti-vaccination doctrine as is vaccination itself. A series of "Vaccination Tracts" by Dr. Garth Wilkinson and Mr. William Young, the secretary of the Anti-vaccination Society, has the following as the subject of Tract No. 12: "The imposture of the current small-pox lymph called vaccine, and the new imposture of calf-lymph. Also, the chaos of statute law, dealing with vaccine substance." The tract concludes by laying down seven "positions" which seem to form a kind of creed. The second "position" contains the following statement: "It [i.e., small-pox] is one of the least contagious of diseases ..... and its contagion is easily prevented by known means." The sixth "position" is: "Small-pox hospitals are the culminating mistake in the social treatment of the disease. They are sewers of death to their inmates. ..... The true policy with small-pox, *in itself* now an insignificant disease, is to let each case lie where it falls, and to treat it there as it ought to be treated." If, therefore, the immunity of Leicester from small-pox proves anything, it proves the value of what anti-vaccinators hold to be "the culminating mistake in the social treatment of the disease."

I am, Sir, yours truly,

JOHN C. M'VAIL, M.D.

Holmhead, Kilmarnock, N.B., June 18th, 1886.

BRITISH MEDICAL BENEVOLENT FUND JUBILEE.

To the Editor of THE LANCET.

SIR,—The following donations have been received or promised in connexion with this celebration:—

	£	s.		£	s.
Her Majesty the Queen (through Sir J. Paget)	100	0	Arthur Durham, Esq.	21	0
Sir G. Burrows, President	21	0	J. L. France, Esq.	21	0
Sir James Paget	26	5	Dr. Frank	20	0
Lady Paget	10	10	John Morgan, Esq.	25	0
Sir Wm. Gull	20	0	H. Veasey, Esq.	20	0
A Provincial Physician (through Sir J. Paget)	1050	0	Dr. Wilks	10	10
A. B.	10	0	Dr. Haviland	10	10
Messrs. Lucas Bros.	50	0	A. H. Cumberbatch, Esq.	5	0
J. N. Winter, Esq., Brighton	200	0	Dr. E. L. Birkett	5	5
Dr. Matthews Duncan	100	0	Dr. Travers	5	5
Dr. Hare	100	0	Dr. Douglas Powell	5	5
Dr. Quain	52	10	Dr. Wilson Fox	5	5
			Barrow, Esq.	5	5
			Messrs. Morton and Burt	5	5

I am, Sir, yours faithfully,

34, Seymour-street, Portman-square, W. W. H. BROADBENT.

EDINBURGH.

(From our own Correspondent.)

ROYAL SOCIETY OF EDINBURGH.

AT the fortnightly meeting of the Society held last Monday, amongst many valuable papers an important contribution to the study of the physiology of the blood was presented by Dr. William Hunter. Dr. Hunter has made a long series of experiments with a view to determining the usual duration of functional activity in the hæmocyte. To observe this with accuracy he made use of the method of transfusing the blood of one animal into the blood stream of another in which the microscopic character of the hæmocyte differed from that of the blood transfused. By this system of differential transfusion he has been led to the conclusion that the average life history of the red blood-corpuscle extends over a period of from two to three weeks.

POST-GRADUATE COURSES IN EDINBURGH.

A second meeting was held in connexion with this project in the hall of the Royal College of Physicians, on Tuesday the 22nd inst. Professor Sir Douglas Maclagan occupied the chair, and there were some thirty of the teachers in the Edinburgh School present. Considerable progress was made at this meeting towards a final settlement of the arrangements; the "clinical week" which was spoken of in the original proposal has been expanded to a course of three weeks' instruction. With the concurrence of the various boards of management, it has been arranged to throw open the various hospitals, dispensaries, and asylums, for the use of the practitioners who will attend, and courses of instruction will be carried on in each by teachers connected with the several institutions in question. After some discussion, it was decided that a fee of one guinea should be payable for a ticket giving admission to all or any of the courses of instruction. This fee is to be used in liquidating the expenses which will arise in connexion with carrying out satisfactory arrangements, and any surplus is to be divided proportionally between the public institutions in which the courses are held. The arrangements may thus be said to be already fairly under weigh, and there seems every prospect of the project having a complete realisation. During the last few days the suggestion has been largely canvassed amongst country practitioners, by whom it has been met with so warm an approbation that from their side at least the most cordial support is to be looked for. The meeting will occupy the last week in September and the first two weeks of October of the current year.

DR. WENDELL HOLMES.

Dr. Holmes has accepted an invitation from the Students' Representative Council to be present at a symposium to be held in the Oddfellows' Hall, Forest-road, on Friday night. It is expected that he will deliver a short address, and the evening will be enlivened by an enjoyable musical programme, carried out by the students themselves. In the afternoon of the same day Dr. Holmes is to receive the honorary degree of LL.D. Edin. at the hands of the Senatus and University officials at a private meeting in the Upper Library Hall.

Edinburgh, June 23rd.

IRELAND.

(From our own Correspondent.)

ROYAL COLLEGE OF SURGEONS: ANNUAL REPORT OF THE COUNCIL.

DURING the year ended April 5th last, eleven candidates were admitted to the Fellowship, ninety-one received the Letters Testimonial, six Licentiates the diploma in Midwifery, and nine practising dentists the Dental diploma. The resolution of the College, that candidates should be classified at the examination for Letters Testimonial, was submitted to the Council at a special meeting, who confirmed the resolution, and arrangements have been made to carry it into effect. The conference with the College of Physicians in reference to a conjoint examination between the two Colleges came to an untimely end in October last, when the College of Physicians stated that they could not entertain the proposal as to the distribution of the surplus between the Colleges. I understand negotiations have recently been entered upon between the two Colleges for a conjoint examination; but the whole matter, in my opinion, depends upon whether the College of Physicians is willing to allow the Apothecaries' Hall to join the proposed scheme. If they do, all will, I believe, be amicably arranged; but if a refusal is insisted upon by the College of Physicians, the present conference will prove as abortive as its predecessors. The reason of this is, as stated in my last letter, that if the Apothecaries' Hall are prevented joining in the proposed scheme, they can

claim the right of obtaining examiners on application to the Medical Council, and so could issue licences in medicine, surgery, and midwifery for very small fees; which arrangement the College of Surgeons, for obvious reasons, very properly object to. Certain changes have been adopted by the Council in reference to the answering of candidates at examinations, and candidates, in order to pass, must attain at each examination a certain standard mark in each subject. For example—in anatomy and surgery, 50 per cent. for each; physics, chemistry, and materia medica, 35 per cent. for each; medicine, histology, physiology, midwifery, and ophthalmology, 40 per cent. for each; botany, pharmacy, and medical jurisprudence, 25 per cent. In accordance with representations made by the President, Sir Charles Cameron, to the Commissioners of Valuation, a revaluation of the College premises took place, which resulted in the remission in future of a considerable portion of the very heavy taxation to which the College had heretofore been subjected. Other matters in the report have to a great extent been already referred to in these columns, and it is unnecessary to reproduce them.

LOCAL GOVERNMENT BOARD.

The annual report has been issued rather earlier this year than usual, and from it I find that the returns for the past year show a decline in the average daily number of persons relieved in the workhouses. There was, however, an increase in the average daily number of persons afforded relief out of the workhouses, the increase amounting to 1136 persons. These returns refer to October of last year; but since January last there has been considerable distress among the poorer classes, and the outdoor lists are in excess of the previous year by 6854. There has been a decrease of 867 in the total number of sick admitted to workhouses, and an increase of 22,218 in the number admitted who were not sick, thus showing an increase of 21,351 in the total number admitted during the year. The number suffering from fever or other contagious disease was less by 1151. The total number of deaths in the workhouses was 10,925, or a decrease of 313. Of these, deaths by fever were 371, as against 510; by lung disease, 1997, as against 1929; and deaths by small-pox, 2, as against 1 in the previous year. There were 17 cases of small-pox treated by dispensary medical officers during the year, being the lowest number recorded during the past 22 years. The total expenditure of poor-rates for poor relief, medical relief, sanitary measures, superannuation, &c., was £1,258,465, being a decrease of £28,270 as compared with the previous year.

Dublin, June 15th.

PARIS.

(*From our own Correspondent.*)

ELECTION OF DR. BROWN-SÉQUARD TO THE ACADEMY OF SCIENCES.

THE portals of the Paris Academy of Sciences have at last been opened to Dr. Brown-Séquard, as he was elected member at its last meeting on Monday, in the Section of Medicine and Surgery. The eminent biologist was elected by a large majority, and the victory was the more creditable as the competitors of Dr. Brown-Séquard were all men of note, in proof of which statement I have only to mention the names of Germain-Sée, Bouchard, Jaccoud, Hayem, and Richet.

REVACCINATION.

In a work lately published by Dr. Jules Besnier, entitled "Revaccination of Young Subjects, and particularly of Collegians, compared with that of Adults," the author, from his own experience at the College Rollin, of which he is physician, arrives at the following conclusions:—1. The success obtained by the revaccination of subjects revaccinated for the first time increases rapidly with age, notably in collegians, and attains its maximum from fifteen to twenty years of age—that is to say, in adolescence. In adult age, the success is less than in adolescents, and it increases with years, only very slowly and in a manner scarcely preceptible. 2. The elevation of the figure of successes, in adolescence, depends, on the one hand, on the age of the subjects—that is to say, the time that elapsed since vaccination; and on the other, on the divers conditions of soil or constitution, such as the period of growth, college life, regimen, &c. 3. Certain maladies favour the vaccinal receptivity at the different periods of life, and thus contribute to increase the number of successes; while others, on the contrary, would have no influence of this kind. Among the former are certain acute maladies, which have a profound influence on the economy, and notably typhoid fever; among the latter would be the ordinary eruptive fevers in young subjects, and chronic maladies in adults. 4. In subjects vaccinated at birth and not revaccinated, the variolic receptivity, like the vaccinal, attains its maximum in adolescents—that is to say, from fifteen to twenty years of age, and diminishes, on the contrary, in adults. 5. These are so many reasons which justify revaccination in young subjects, and in particular collegians. For the latter, the vaccine from the cow is preferable to the vaccine from the child, and, in the absence of an epidemic of small-pox, the time most opportune to practise this revaccination is that of the month of March or April, which would be after the Easter holidays.

INSANITARY CONDITION OF PARIS.

The Parisian authorities, and, indeed, the citizens themselves, are reminded of the insanitary condition of their great metropolis by the offensive odours which are almost permanently prevalent in it. These become more intolerable during the hot weather, and no wonder, when it is considered that this city contains no less than 80,000 cesspools, with a population of over 2,000,000. The Council of Hygiene and the Academy of Medicine of Paris have been frequently appealed to for suggestions as to how this nuisance may be removed. As usual, the members of these learned bodies are divided as to the real cause of the nuisance, some attributing it to the fermentation of the dejections stored up in the cesspools, while others ascribe them to the sewage farms which are established outside the city. Among the remedies proposed may be mentioned the abolition of the cesspools, the removal of the effete material at short intervals, or the emptying of it into the sewers, which in their turn are to be emptied into the Seine near its mouth. The latter idea was borrowed from the English, but the adversaries "tout à l'égout" remind the partisans of the English system of the bad smells lately complained of in the House of Commons, which were evidently due to defective sewerage. M. Pasteur was even consulted on the subject, and the adversaries to emptying all the refuse matter of this city into sewers laid the following proposition before the illustrious *savant* in the following terms:—"Here is a malady [charbon] which is characterised by germs which may persist; if this be the case with the germs of all contagious maladies (diphtheria, scarlatina, typhoid fever), it is certain that 'tout à l'égout' will constitute a great danger." To this M. Pasteur replied: "In fact, I must acknowledge that science is not complete on all these maladies. It is for charbon, but it is not yet for small-pox, diphtheria, scarlatina, nor for others. Their germs are not known; we do not know whether these maladies have germs." In reply to a question by a member of the Council of Hygiene, M. Pasteur stated the difference which exists between scientific solutions which are slow to be effected and practical solutions exacted by imperious circumstances. "The question to be determined, put before science as it is, cannot be solved at present. Science on this point is altogether incomplete. Put before engineers, it is a different thing. Often engineers and public men are held to solve certain questions, even when science is not completed on these questions. A man of the laboratory, I can only count with established principles. You engineers ought to arrive at practical solutions even in the presence of a science unachieved."

THE CHARGES AGAINST PROFESSOR CHATIN.

The Commission ordered by the Minister of Public Instruction, and composed of MM. Berthelot, Member of the Academy of Sciences, Béclard, Dean of the Faculty of Paris, and Greard, Dean of the University of France, to investigate the charges brought against Professor Chatin by the students of the School of Pharmacy, has exonerated him, as nothing was found to impeach his honour or to justify the complaints of the students. The ringleaders of the disturbances created at the School of Pharmacy, and which have been reported in THE LANCET, have been punished. Two of them were sent before the Correctional Police, by whom they were condemned to six and four days' imprisonment, and to a fine of 50 francs respectively.

Paris, June 23rd.

EGYPT.

(From our own Correspondent.)

EXAMINATIONS AT THE MEDICAL SCHOOLS.

THE annual examinations at the Medical School have just taken place, and were honoured on the closing day by the presence of His Highness the Khedive, the two High Commissioners, and all the native Ministers. The examiners consisted of seven Europeans and seven natives, besides the twelve native professors of the school, all being under the presidency of Dr. Salem Pacha. The examination is entirely *viva voce*, but it is hoped that the system of writing papers on the most important questions will be introduced next year. In the first class, consisting of those who had completed five years' medical study, were nineteen youths, and of these only one was referred to his studies. The eighteen will now undergo a competitive examination at Kasr-el-Aini Hospital in practical subjects; the first six will be elected as house-surgeons there for a year, and will receive £72 and lodging, while the others will work for the same period without pay as dressers and clinical clerks. At the end of the year they will pass another examination, receive certificates to practise, and start fairly in the Government service. The six youths who are now emerging from their hospital work are much smarter and more useful than their predecessors, who under the old system never received any practical training, and they will now be temporarily attached to the Sanitary Department, to take the place of the hospital surgeons in the provinces, each of whom in turn is to come up to Cairo and work for three months at the central hospital here.

KASR-EL-AINI HOSPITAL.

Dr. Milton has just completed his second year of residence at this hospital. During the first year there were many cases of erysipelas and septicæmia; but during the second there has not been a single case of blood-poisoning in the surgical wards, though the average number of in-patients has been raised from 300 to 550, and the number of surgical operations has been largely increased. This salutary change is probably due to the care bestowed upon ventilation, cleanliness of patients, irrigation of wounds, and in the closing of a most obnoxious system of foul latrines and a network of cesspool catacombs opening into the Nile.

THE MILITARY HOSPITALS AT CAIRO AND ALEXANDRIA.

The English military hospitals in Cairo and Alexandria are unusually full of sick, most of the patients having come down from Upper Egypt. At Assouan there is at least one death daily, and sometimes more, among the four regiments now stationed there. The soldiers are young, they have no work and practically no amusement, and are struck down in numbers by enteric fever. The heat varies from a minimum of 100° just now to 116° in the tents, and has caused a few cases of sunstroke. Recently eight drummer-boys were sent out from England to a regiment stationed at Korosko, of whom three died, four were invalided, and the eighth was left behind when the regiment evacuated Korosko, only to die the following day.

NEW WATER-SUPPLY AT ROSETTA.

The ancient town of Rosetta, although situated on one of mouths of the Nile, has hitherto suffered from a complete dearth of fresh water at the time of low Nile, owing to the river being at that time slightly below sea-level. This town is notorious for the number of cases of elephantiasis, as well as other diseases, and Dr. Sandwith was fortunate enough to enlist the powerful aid of Colonel Scott Moncrieff in his endeavours, two years ago, to improve the water-supply. A fresh water canal of twenty-four miles from Atfeh to Rosetta has now been completed, and a daily supply of 650,000 gallons for the latter is established, besides the irrigation of some thousands of acres of waste land through which the canal passes—to the great delight of the neighbouring fellaheen. A dam 730 yards in length, further up the river, will also prevent the supply of drinking-water for Alexandria and the towns and villages along the Rosetta branch of the Nile and the Mahmoodeeyeh canal from being tainted by the inroad of sea-water, as has occasionally happened during former years.

TOURAH CONVICT PRISON.

An epidemic of relapsing and typhus fevers has broken out at the Tourah Convict Prison near Cairo, but it has been well combated by the Sanitary Department, and no cases have spread to the neighbouring villages, though many of the prison officials have contracted relapsing fever.

CAIRO LUNATIC ASYLUM.

This asylum, under the direction of a native doctor, sustains its reputation for cleanliness and usefulness. It now contains 250 men and sixty-two women. Three-fourths of the men are suffering from the effects of hasheesh (cannabis indica), besides about ten cases due to alcoholism. Nymphomania accounts for many cases among the younger women. A very successful garden has now been made, and mat-making and carpentry are carried on daily by the inmates. Quite lately a donkey boy was admitted as a patient, was taught mat-making, and now, cured of his insanity, he has adopted it as his trade in Cairo. At my last visit to the asylum I was accompanied by the resident physician to a large Scotch pauper asylum, who said that all the arrangements here compared favourably with those to which he was accustomed in Scotland. But much remains to be done, especially in the direction of making the lunatics do out-door work. I noticed fifteen criminal lunatics in the wards, one of whom was a notorious ferryman from Mansourah, who used to murder his passengers and throw their bodies into the fast-flowing Nile.

THE SANITARY DEPARTMENT.

One of the most recent additions to the Sanitary Department is a young sanitary engineer, with a varied experience of seven years in England. He has already been employed by one of the chief native house-builders, who wishes to alter a house recently completed, and also to build a new one on approved sanitary principles, by which means he hopes to ensure for himself a succession of English tenants.

Cairo, June 1st.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an extraordinary meeting of the Council held on Thursday last, on the confirmation of the minutes of last meeting, the following resolution, slightly amended, was adopted in the case of Mr. Bryceson:—"That Mr. Bryceson be allowed to present himself for the final examination for the Diploma of Member on producing certificates of having attended anew at the London Hospital College of Medicine the several courses of lectures which were invalid in his Schedule—viz., the courses on Materia Medica, Midwifery, Chemistry, Practical Chemistry, Medicine, and Pathological Anatomy."

Mr. Alabone, a Member of the College, attended at the summons of the Council to answer questions in reference to certain notices of him which had appeared in various public journals, and, having made a verbal statement, was called upon to make a statement in writing for the further consideration of the Council.

MEDICAL NOTES IN PARLIAMENT.

Medical Acts Amendment Bill.

IN the House of Lords, on the 18th inst., Earl Spencer moved the second reading of the Medical Acts Amendment Bill, and briefly alluded to the necessity of legislation on this subject, and reviewed the main provisions of the Bill. The Duke of Richmond and Gordon said that he believed the provisions of the Bill had been carefully considered in the other House, and agreed in the opinion that it had been very skilfully managed by the Vice-President. He gave notice that he would move amendments in Committee which would have the effect of making the Universities of Aberdeen and St. Andrews each elect a member to the Council. The Duke of Argyll said he should support the proposition of his noble friend. It was the only case in the Bill in which two universities were tied together to make one appointment. As the Bill now stood, the Irish Universities would each appoint one member, making five in all, whereas in Scotland they would only have three members. After a few words from the Earl of Milltown, Earl Spencer said he would discuss the subject in Committee, but he was afraid there

would be some considerable difficulty in re-arranging the matter. The Bill was then read a second time.

On the 21st the House went into Committee on the Bill, and the Duke of Richmond moved an amendment, giving the Universities of Aberdeen and St. Andrews separate representation on the Council to be formed under the Bill. The amendment was opposed by Earl Spencer, but on a division was carried by forty-four votes to forty-one. The Bill passed through Committee.

On the 22nd report of amendments to the Bill was received, and on the 23rd it was read a third time and passed.

The Contagious Diseases (Animals) Bill.

On the 21st inst. the Commons' amendments to this Bill were agreed to.

The Idiots Bill.

In the House of Commons, on the 18th inst., the Idiots Bill passed through Committee, was reported without amendments, and read a third time.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone all the necessary examinations, were admitted Licentiates in Dental Surgery at a meeting of the Board of Examiners on the 17th inst.:—

Barstow, Charles Albert, James-street, Harrogate.
Jones, Alfred Ernest, Stamford-hill.
Mansbridge, Josiah, West Hampstead.
Rilot, Charles Frederick, Grange-park, Ealing.
Whittaker, George Oldham, Blackley, Manchester.
Wright, Charles Frederick, Edgware-road.
Wrighton, Thomas Henry Garland, Buckhurst-hill.

(Candidates referred, 7.)

The library of the College will be closed on Wednesday, June 30th, for the purposes of the examinations; on Thursday, July 1st, for the Council election, and on Friday, July 2nd, for the examinations.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 18th inst., the degree of M.B. was conferred on Keighley, Archibald, Pembroke. | Robb, Charles Edward, Caius.

ROYAL COLLEGE OF PHYSICIANS IN IRELAND.—At the June examinations the following obtained the licences in Medicine and Midwifery of the College:—

MEDICINE.—Edward Corcoran, James Corcoran, Thomas Crowe, Robert Vicars Pietcher, Edward Jonathan Goode, George E. Hughes, Richard Mandeville Hugo, Joseph Peter Kelly, John Freeik. Kennedy, Timothy Robert Killeen, John Edward Langan, Reginald Thomas Alexander Levinge, Charles Madders, William J. Peacocke, James Albert Frederick Sawyer, Arthur Ernest Switzer, William Joseph Taylor, Thomas Wilford Twinem, Thomas Verner.

MIDWIFERY.—Edward Corcoran, James Corcoran, Benjamin Devonsher Dickson, Edward Jonathan Goode, George E. Hughes, Richard Mandeville Hugo, John Frederick Kennedy, Reginald Thomas Alexander Levinge, Alfred Edward Thomson, Francis Edward Townsend, Thomas Verner.

Last month the undermentioned was admitted a Member:—
Myles Joseph Jordan.

SOCIETY OF APOTHECARIES.—The following gentlemen passed their examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise, on the 17th inst.:—

Birch, Charles Ormond, Harley-street.
Denman, Robert, Sydenham.
Freeman, Richard Austin, Caledonian-road.
Morris, Edward, Wharton-road, West Kensington-park.
Williams-Freeman, John Peere, Bursledon, Southampton.
Yolland, John Horatio, Hoylake, Birkenhead.

THE sum of 800,000 francs has been contributed from national and municipal sources for the erection of anatomical and chemical institutes in Nancy.

DENTAL HOSPITAL OF LONDON.—His Grace the Archbishop of Canterbury has accepted the office of a Vice-President of the above hospital.

THE CONDITION OF THE RIVER LEA.—The Select Committee appointed to inquire into and report upon this subject have reported upon the evidence they have had before them, and recommend that a committee be appointed on the assembling of next Parliament to consider their report, and, if desirable, to take further evidence. The committee trust that the Lea Conservancy Board will duly exercise their rights regarding the quantity of water they are entitled to pass through their locks in priority to either of the two water companies during the dry season of the coming summer.

NORTH LONDON CONSUMPTION HOSPITAL.—Sir Henry Holland presided at the annual festival of this charity, held on Wednesday, at Langham's Hotel. The contributions announced during the evening amounted to £1256.

THE AMERICAN EXHIBITION IN LONDON.—President Cleveland has accepted the honorary presidency of the American Exhibition to be held in London in 1887, and will perform the opening ceremony by telegraph from the White House.

A PRIVATE FEMALE UNIVERSITY is to be established in Moscow through the efforts of Mdme. Fischer, who has now a girls' gymnasium there. The university is to have three faculties—Philological, Mathematical, and Scientific. The last will probably ultimately be expanded into a medical faculty.

GUY'S HOSPITAL.—The annual distribution of prizes to successful students of the hospital will take place at 3.30 P.M. on Friday, July 2nd, in the grounds of the institution. The wards and museums will be open to visitors from 4 to 5 P.M., and ladies are invited to be present.

THE PASTEUR INOCULATION IN RUSSIA.—The Odessa correspondent of the *Daily News* telegraphs: "From the 24th inst., all persons in Russia bitten by rabid dogs and wolves will be treated in this city by Dr. Gamelei, for whose initiatory operations lymph has been supplied from M. Pasteur's laboratory."

PRESENTATIONS.—An address and two cases of surgical instruments have been presented to Mr. J. Shaw, M.B., C.M., by the members of the classes of the Sheerness centre of the St. John Ambulance Association, as a testimony of their appreciation of his services to the Association during the several courses of lectures and practical instruction which he has given.—A large and handsomely chased salver has been presented to Mr. David Davies, M.R.C.S., L.S.A., late medical officer of health to the Urban Sanitary Authority for the city and county of Bristol, by the local magistrates, members of the Town Council, and persons officially connected with him.

RABIES AND HYDROPHOBIA.—Sir Charles Warren, the Chief Commissioner of Police, has just issued some statistics with regard to mad dogs and deaths from hydrophobia which have come under the notice of the Metropolitan Police from January, 1885, to May, 1886. During this period the total number of mad dogs was 495. The lowest number was in January, 1885, when there were only 8. From this date the number of cases varied for each month as follows:—February, 10; March, 22; April, 20; May, 34; June, 38; July, 47; August, 28; September, 31; October, 31; November, 58; December, 46; January, 1886, 27; February, 14; March and April, 29; and May, 23. The deaths from hydrophobia, which are taken from the Registrar-General's returns, numbered 26 up to December, 1885, the greatest number being in October and November, when there were 5 in each month. Between January and May, 1886, there were 7 deaths.

THE HAMILTON ASSOCIATION.—The annual meeting of this Association, for providing trained male nurses, was held on the 23rd inst., Sir Thomas Crawford, K.C.B., M.D., Director-General of the Army Medical Department, presiding. The report showed that great progress had been made during the year which had elapsed. A considerable number of male nurses had been employed under the Association, and in nearly every case those engaged had given satisfaction. The chairman said that the need of such an Association had been long known to him, and most keenly was it felt in the army. This Association seemed admirably adapted to meet the want long felt by the sick in cases in which male nurses would be preferred. He closed by moving the adoption of the report. Sir Joseph Fayrer seconded the motion, and said that nothing had delighted him more after a long absence from this country than to find on his arrival the admirable system of lady nursing which had been established, and which so greatly simplified the treatment of disease. Still, there were patients who, on account of the nature of their complaint, objected to be under the care of female nurses, and the want of male nurses this Association was admirably adapted to supply. The meeting was afterwards addressed by C. R. Van Lennep, Dr. Prosser James, Mr. Archibald C. Sim, Dr. Don, Mr. Smith (auditor), and Sir J. Danvers.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BENNETT, FREDERICK WILLIAM, M.D.Lond., M.R.C.S., has been appointed Honorary Assistant Physician to the Leicester Infirmary and Fever House.

BULLEID, H. G., L.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer for the Seventh District of the Hexham Union.

CHILD, HERBERT, M.R.C.S., L.S.A., has been appointed Medical Officer for the Fourth District of the North Bierley Union.

CLARK, FRANK W., L.R.C.P.Lond., M.R.C.S., has been appointed Assistant Medical Officer to the Croydon Infirmary, vice G. A. S. Gordon, L.R.C.P.Ed.; L.R.C.S.Ed., resigned.

GIBB, WILLIAM, M.B., C.M., has been appointed Medical Officer of Health for the Burgh of Millport, Isle of Cumbrae.

HUTCHINSON, PROCTER S., M.R.C.S., has been appointed Resident Medical Officer to the Hospital for Diseases of the Throat, Golden-square.

MAHOMED, A. G. S., M.R.C.S., L.S.A., has been appointed Medical Officer for the Third District of the Christchurch Union.

MOSLEY, THOMAS S., M.D.Lond., M.R.C.S., has been appointed Medical Officer for the Barton District of the Glandford Brigg Union.

MYLES, THOMAS, M.B., B.Ch.Dub., F.R.C.S.I., has been appointed Surgeon to the Jervis-street Hospital, Dublin, vice Chance, resigned.

NEALE, J. HEADLEY, M.B., C.M.Edin., M.R.C.P.Lond., has been appointed Honorary Assistant Physician to the Leicester Infirmary and Fever House.

RICHARDS, ROBERT C., M.R.C.S., has been appointed Medical Officer for the Third District of the Hexham Union.

ROUGHTON, E. WILKINSON, M.D.Lond., M.R.C.S., has been appointed Assistant Demonstrator of Anatomy to St. Bartholomew's Hospital.

SMITH, HORACE, L.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer for the Parkham District of the Bideford Union.

Births, Marriages, and Deaths.

BIRTHS.

DRYSDALE.—On the 14th inst., at Château d'Oex, Switzerland, the wife of Alfred Drysdale, M.B.Lond., L.R.C.P., of Cannes, of a son.

DUNDAS.—On the 15th inst., at Fakenham, Norfolk, the wife of Mordaunt G. Dundas, M.R.C.S., L.S.A., of a daughter.

HOOKER.—On the 16th inst., at Gosport, the wife of Charles Hooker, L.R.C.S., L.R.C.P.Ed., of Cirencester, of a son.

JONES.—On the 22nd inst., at 6, Westbourne-street, Hyde-park-gardens, the wife of T. W. Carmalt Jones, M.A., F.R.C.S.Ed., of a son.

MARRIAGES.

BIGGER—WHITTARD.—On the 16th inst., at St. Matthew's Church, Brixton, William Grimshaw Bigger, M.B., M.R.C.S., to Emily Philadelphia, second daughter of John A. Whittard, of Rydal Mount, Streatham-hill.

DAVIES—DIXON.—On the 16th inst., at Holy Trinity Church, Stroud-green, N., William Thomas Frederick Davies, M.B., B.S.Lond., of Swansea, to Florence, daughter of Thomas Dixon, Esq., of Stroud-green, and Dutoits Pan, South Africa.

DOWSON—MORGAN.—On the 17th inst., at St. George's, Brandon-hill, Bristol, Walter Dowson, M.A., M.B.Cantab., of Great George street, Bristol, to Blanche, second daughter of George King Morgan, of Cherith Lodge, Clifton.

MACDONNELL—HOLMES.—On the 17th inst., at St. Michael's, Stoke, Henry MacDonnell, Fleet Surgeon, R.N., Royal Marine Depôt, Walmer, to Frances Alice, eldest daughter of the late Sir William Holmes, of Manor House, Kilrea, Ireland.

NANKIVELL—HULL.—On the 10th inst., at Holy Trinity, Bournemouth, Herbert Nankivell, M.D., of Pen-Mellyn, Bournemouth, to Constance Alice, fifth daughter of the late William Winstanley Hull, of The Knowle, Hazelwood, near Derby.

ROE—ROE.—On the 16th inst., at St. Mark's, Kennington, Francis Christian Roe, L.R.C.S.I., L.K.Q.C.P.I., &c., to Carrie, second daughter of Robert Roe, of Clifton House, Kennington-park-road.

WOOD—MADGEN.—On the 23rd inst., at St. Hilda's, South Shields, by the Rev. James McGrigor, John Cundell Wood, L.R.C.S., L.R.C.P.Ed., son of Peter Wood, of Sunderland, to Ellen Maude Madgen, second daughter of the late W. A. Madgen, of Greencroft, Haltwhistle.

DEATHS.

BENTHALL.—On the 14th inst., at Sherborne, Dorset, Alfred Elliott Benthall, F.R.C.P.Ed., fourth son of Edward Benthall, late Bengal Civil Service.

DIAMOND.—On the 21st inst., at Twickenham House, Middlesex (after a long illness), Hugh Welch Diamond, M.D., F.S.A.

GIRDLESTONE.—On the 14th inst., at Château Falaise, Biarritz (after a few days' illness), Charles Girdlestone, M.D., son of the late Rev. Harry Girdlestone, of Landford Rectory, near Salisbury, aged 64.

MURDOCH.—On the 20th inst., at Malta, Alexander Brown Murdoch, M.B., C.M., Surgeon, H.M.S. *Superb*, aged 29 years.

PARR.—On the 19th inst., at Ravenleigh, Betchworth, Surrey, Alfred Parr, M.D., aged 60.

RINGROSE.—On the 22nd inst., at Wood-green, Basil Ringrose, M.R.C.S., in his 47th year.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, June 24th, 1886.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
June 18	30·02	N.E.	53	49	72	55	49	...	Overcast
,, 19	29·83	N.W.	55	52	109	71	50	·07	Overcast
,, 20	30·03	N.W.	62	55	110	66	51	...	Cloudy
,, 21	30·08	N.	52	49	79	61	48	...	Overcast
,, 22	30·01	N.W.	57	53	97	67	52	...	Cloudy
,, 23	29·80	W.	62	55	112	71	55	...	Cloudy
,, 24	30·02	W.	59	62	...	...	50	...	Fine

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

Letters requiring notice must be authenticated by the name and address of the writer.

We cannot undertake to return MSS. not used.

THE APOTHECARIES' SOCIETY AND THE MEDICAL BILL.

L. S. A.—The Medical Bill will require the Apothecaries' Society either to combine with other Corporations, or to get assistant examiners from the Medical Council. In one of these ways it is intended to secure that the diploma shall be a registrable qualification in medicine, surgery, and midwifery.

B. S. (Huddersfield).—According to Dr. Salvatore de Renzis, in the Preface to his great edition of Celsus (two vols. 4to, Naples, 1851), the University of Edinburgh about the year 1770 was in treaty with Lupacchini to purchase the MS. of the edition of the Latin writer's "De Arte Medicinæ," on which he had long been engaged; but Lupacchini declined to come to terms. Not long afterwards he died of hydrophobia; but his valuable critical labours were not allowed to perish, having been incorporated in Targa's edition (Verona, 1810), and more recently in that of De Renzis's himself.

Aristarchus is referred to a general notice at the head of this column.

APPLICATION OF FORCEPS.

To the Editor of THE LANCET.

SIR,—From time to time one reads in the medical periodicals of the difficulty felt in introducing the upper blade of midwifery forceps, from the handle coming in contact with the bed. I also experienced this difficulty until I read in a contemporary an article written by a general practitioner whose ingenuity seemed only equalled by his common sense. He advised simply that the upper blade be introduced first as the lower and gently rotated into its final position, when the lower can be as easily introduced as if the other blade were not in position, provided the upper handle be kept well aside. I always now employ this method, and have experienced no difficulty since, and I here tender my thanks to the ingenious man who gave me such a practical "tip." This disposes of all complications, such as hinged upper blade handles, having the hips well over the edge of the bed, &c. Why the upper blade should be recommended to be passed last has always been a mystery to me, but so I have been taught and have read in text-books, and here I wish to enter my protest against such a difficult and unnecessary proceeding.

Where the excellent continental method of introducing the forceps can be employed, the patient being on her back, both blades are easily passed, the upper and lower becoming right and left lateral.

I am, Sir, yours faithfully,

Driffield, June 17th, 1886. A. T. BRAND, M.D

THE CHOICE OF A MEDICAL ATTENDANT.

Z.—We do not profess to answer correspondents who are not members of the profession on questions of medical ethics, or to insert their communications. Anyone has an undoubted right to choose or to change his or her medical attendant, but this should not be done capriciously or unreasonably.

Ethics.—A seems to have been treated with scant justice and courtesy; so much so that we almost think B must have omitted—unintentionally, of course—some point in the case. To commence practice as a matter of retaliation would be a severe measure, but the provocation is certainly considerable. B should at least have paid all A's expenses after inducing him to go so far; and perhaps might be made to do so.

Mr. Snell.—Very soon.

SHIP SURGEONS.

To the Editor of THE LANCET.

SIR,—Will you allow space for a few words with reference to the present position of the medical service of Atlantic steamships. A ship's surgeon ranks below, and his name on the passenger list comes after, the purser—he who looks after the ship's accounts is reckoned of greater importance than he who looks after its health! I was assured a short time since by an officer that in a well-known Atlantic company the doctor was not allowed on the quarter-deck after the first day or two, when the ladies were supposed to have got over sea-sickness. Once, having to complain of the insanitary condition of a ship, before sending in my report I showed it to the captain, who, during its reading, ejaculated "You'll get yourself disliked, they'll take no notice of *you*, and it's no business of yours." The letter, however, was sent, and, I am glad to say, acted upon; but it might have been at the cost of my dismissal from the service. On the voyage out to New York every unvaccinated steerage passenger, unless protected (i.e., has had small-pox), must be vaccinated before he can land at Castle Garden. This means examining it may be 1000 people—not long ago I examined nearly 900,—and they are not always free from pediculi, or even clean. A fair fee should be allowed for each successful vaccination; and this would also be a sufficient safeguard against all slipshod inspections. In most ships the purser has the seating of the passengers at table; the tagrag and bobtail are generally, as a matter of course, placed at the doctor's end.

I am, Sir, your obedient servant,

London, June 15th, 1886. M. A. P.

"INFANTICIDE BY PERAMBULATORS."

A CORRESPONDENT writes from Belfast to enforce the suggestion, made last week in our columns, that children carried in perambulators should sit or lie with their faces towards the nurse.

G. N.—The question is discussed in another column of our present number.

Mr. J. T. Williams.—In an early number.

PRACTICE IN CANADA.

To the Editor of THE LANCET.

SIR,—In reply to your correspondent, "Colonist," whose letter appeared in your issue of May 29th, I may say that most of the appointments here—as to gaols, penitentiaries, lunatic asylums, &c.—are political in character, and are only obtained through Government influence. Hospital appointments yield little but experience. In the General Hospital here the medical superintendent receives £250, with rooms, &c., but the three house-surgeons receive nothing but their rooms and board. In the provinces of Ontario and Quebec a licence must be obtained from the College of Physicians and Surgeons of the province. In the other provinces a licence is granted by the respective provincial Governments. The fees are for the most part small, ranging from £1 to £6 in the different provinces. The profession in Canada is quite full enough. I have supposed that "Colonist" is a licentiate of one of the Royal Colleges; otherwise he will have an examination (in Ontario and Quebec) equal to theirs to pass, and the fees are consequently larger.

I am, Sir, yours faithfully,

Montreal, June 10th, 1886. L.C.P.S. QUE.

A Country Practitioner.—See Manual of Surgery, edited by Treves, vol. ii., p. 509; Holmes' System of Surgery, vol. ii., p. 636; Pye's Surgical Handicraft, p. 49. The instrument is made by Messrs. Arnold and Sons.

Mr. C. S. Jeaffreson.—Yes.

Mak is referred to the Medical Directory, published by Churchills.

"IODOFORM SPRAY."

To the Editor of THE LANCET.

SIR,—Would Mr. Alfred Leach, who wrote under the above heading in your issue of June 12th, p. 1148, have the goodness to give your readers a more detailed method of producing a *solution* of iodoform for spray. His prescription is rather lax. How are the terebene and iodoform made into a homogeneous solution? I have only succeeded in suspending the latter (which soon blocks the fine tube of the spray-producer), and the former floats on the top of the mixture. I think a *solution* of iodoform without ether would be a preferable application in many cases of inflamed or relaxed mucous membrane.—I am, Sir, yours truly,

June 23rd, 1886. INQUIRENS.

AN AVERTED SCARE.

LAST week Florence and its neighbouring townships were thrown into something very like panic by the announcement that three persons had died in the Via Pellicceria after a few hours' suffering from Asiatic cholera. The alarm was rapidly developing into a scare, and preparations for a stampede on the part of all who could get away were becoming general. But the Tuscan nature is less superstitious and impressionable than the Neapolitan, and there was still time for an appeal to the common-sense and the self-control of the Florentines. That fortunate interval was promptly utilised by the municipality. Medical authority of the highest kind was at once brought to bear on the seat of the supposed outbreak, and in a few hours the fatal cases were proved and published to have been due to violent gastro-enteritis caused by the drinking of contaminated water. The announcement was a calmative of the most effective kind; the city and suburbs resumed their wonted joyous animation; and now day has succeeded day without the slightest symptom among the inhabitants either of cholera or of its consequent scare.

Dr. C. F. Hutchinson.—The letter is very bad, but it is not worth notice.

AN APPEAL.

To the Editor of THE LANCET.

SIR,—May I beg space in your valuable journal to ask assistance for a most deserving case which calls for immediate help. It is that of the widow of a medical man who died a few years back without making any provision for his wife and four little children. She has used her utmost endeavours up to the present time, and worked very hard to provide for the welfare of her family, who are all dependent upon her for support. She is now very much out of health from continued anxiety and the many privations she has had to endure, and for the present is unable to pursue her previous occupations; in fact, is reduced to selling the few things she has gathered together for present maintenance. I propose therefore, through your kind assistance, to start a fund, which will, I hope, relieve her present distress, and afford the means for her embarking upon suitable and remunerative employment as soon as she is able. I trust that all readers of your journal will respond to my appeal by sending whatever small donation may be agreeable to them. These with larger amounts will be thankfully received and acknowledged by myself. I may add, that if any subscriber to the fund desires a more detailed account of the case I shall be pleased to give any further information that may be wished. Sir Andrew Clark has already subscribed, and Sir James Paget has promised to do so when a fund is started.

I am, Sir, yours, obediently,

R. FITZROY BENHAM.

Abercorn House, Baron's Court, June 15th, 1886.

R. Bousteud.—Twenty-three grains and a half of cocaine have been taken by an adult without fatal effects. We cannot, therefore, assume that it is dangerous to use a small quantity superficially or hypodermically on a child a month old. We should not, however, recommend its use with a view to the removal of "a rather superficial nævus;" for it would be practically inert applied to the surface of the nævus, and to inject it into its substance would be almost as painful as the operation chosen to destroy the growth. We have known it injected beneath the skin and mucous membranes in the adult in sufficient quantity to efficiently remove sensibility, and yet not cause toxic symptoms. In an adult it is not so much the actual pain of a minor operation which the surgeon has to consider as the mental and emotional state of the patient incidental to an operation. In a child a month old the personal equation is a much simpler one; so that at that age it is seldom advisable to administer a general or local anæsthetic for the cure of a nævus.

Mr. Holford (Jersey).—We regret there is no law to prevent it.

REMARKABLE CASE OF DEFORMITY.

To the Editor of THE LANCET.

SIR,—A child with the following congenital defects has been admitted into the Tottenham Hospital, under Dr. Lichtenberg:—Absence of globes of both eyes (palpebral fissures present); hare-lip, with slight anterior fissure in palate; slight talipes equino varus. Both fontanelles are open, and joined by separation of parietal bones. There is a flattening of one side of the head, with corresponding bulging of opposite side. The body of the child (a girl) is well nourished. There is no apparent cause; three older children are all healthy; no consanguinity between parents, but consumption in both their families; the mother received a fright while driving during the eighth month.—I am, Sir, yours truly,

LLOYD G. SMITH, M.B.

Training Hospital, Tottenham, June 21st, 1886.

ERRATA.—In Mr. Hartzhorne's letter, published in our issue of the 12th inst., p. 1148, speaking of the properties of cocaine, vaseline, and glycerine, vaseline should have been quoted as forming *seventy-four*, instead of "twenty-four" parts of the whole.—In our notice last week, page 1180, of the use of Indian hemp in dental operations, the name "Aarousin" should have been printed *Aarousin*.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Wilks, London; Dr. O'Neill, Lincoln; Mr. B. Hill, London; Dr. Oswald Lane, Northampton; Rev. D. F. Wilson, Mitcham; Rev. Herman Adler, London; Dr. med. Hagens, Zetel; Rev. H. C. Green, Hammersmith; Rev. W. H. Langborne, Hackney; Rev. W. G. Horder, Wood Green; Rev. A. C. Tarbolton, London; Mr. W. J. Benham, London; Dr. O'Neill, Belfast; Mr. Clutterbuck, London; Dr. Miller, Sowerby Bridge; Mr. Holford; Dr. Brand, Driffield; Mr. Plowright, King's Lynn; Dr. Hutchinson, Scarborough; Dr. Dudley, London; Rev. A. Robins, Windsor; Dr. Wigleworth, Rainhill; Mr. J. W. W. Green, Portsmouth; Rev. C. H. Simpkinson; Dr. Koplik, Munich; Mr. A. Mickle, London; Rev. W. P. Pearce, London; Mr. Howe, Weston Vermont; Mr. Scudamore, London; Dr. Craster, Middlesbro'; Mr. F. Churchill, London; Mr. L. G. Smith, Tottenham; Mr. Knowsley Thornton, London; Rev. G. C. Williamson, London; Dr. Prosser James, London; Mr. M. Atkinson, London; Messrs. Cassell and Co., London; Dr. Barlow, Manchester; Mr. Mitchell; Mr. Hurry Fenwick, London; Dr. Wilson, Leytonstone; Dr. Chettle; Rev. D. Llewellyn, Tooting; Mr. De'Ath, Buckingham; Messrs. Condy and Co., London; Mr. Hodgson, London; Mr. Hyne, Jersey; Rev. A. Comford, Kingston; Mr. Smith, Hereford; Messrs. Debenham and Co., London; Mr. Mercier, London; Dr. Taylor, Notts; Dr. Drysdale, Cannes; Mr. Birchall, Liverpool; Mr. Antony, London; Mr. Oaney, St. Albans; Dr. Harley, London; Mr. Pearson; Messrs. Cubbley and Co., Sheffield; Mr. Fisher, Kendal; Dr. Perry, Bordeaux; Rev. J. Fyson, Hendon; Mr. B. Walker, Spondon; Messrs. Maclachlan and Co., Edinburgh; Rev. J. Bowman, Southgate; Rev. H. Mason, London; Mr. Barnasconey, Plymouth; Messrs. Wood and Co., New York; Mr. Hoysted, Gibraltar; Mr. Silverlock; Messrs. Bennett and Co., London; Mr. Dawes, Wandsworth; Mr. Barnett; Mr. Colwell, Portsmouth; Dr. Eberle, Thirsk; Mr. Milne, Ladywell; Mr. Hunt, Clapton; Rev. T. Hill, N. Finchley; Mr. Meers, Chudleigh; Dr. Adam, West Malling; Mr. Keeting, Manchester; Messrs. Black and Co., Elgin; Mr. Johnson, Leicester; Mr. Atkinson, Toronto; Mr. Obern, London; Mr. T. Cook, London; Mr. Schofield; Messrs. Butterfield and Son, Northampton; Dr. Habgood, Eastbourne; Mr. Lancaster, London; Mr. Bell, London; Mr. Hammer, Crowborough; Young Practitioner; M.A.P.; C.C.; Matron; L.S.A. Lond.; M.D., Piccadilly.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Croke, Hull; Mr. Howard, Littleport; Dr. Thompson, Ampthill; Mr. Kuhn, London; Dr. Popham, Birmingham; Mr. Pethrick; Messrs. Read and Co., Bristol; Dr. Wright, Finedon; Dr. Metcalfe; Mr. Fox, Bishop Auckland; Mr. Edwards, Notts; Mr. Fisher, Kendal; Miss Meyer, Holloway; Mr. Charlton, Gainsboro'; Mr. Newton, South Brisbane; Mr. Bogle, Redcar; Mr. Woodhead, Huddersfield; Messrs. Boulton and Paul, Norwich; Mr. Forrest, Camberwell; Mrs. Turner, Arley Castle; Mr. Brown, Cobham; Mr. Furness, Wigton; Dr. Maskew, Fawley; Mr. Grier, Mevagissey; Mr. Guest, Nelsonby; Messrs. Ford and Co., London; Mr. Scott, Manchester; Messrs. Roberts and Co., London; Mr. Hughes, Ombersley; Mr. Davidson, Brighton; Mr. James, Pontypridd; Messrs. Beal and Son, Brighton; Mr. Wood, South Shields; Sister Geraldine, Cheltenham; Medicus, Surbiton; Alpha; W. F. C., Stoke-on-Trent; Vigilo, Exeter; Medicus, Hackney; Box, Uttoxeter; X. M. D.; M. R.; F. G.; F. H., Downham; Surgeon, Leicester; W., Paddington; Medical Officer, Orkney; H. P., Southport; M.D., Walsall; Doctor, Lewisham; J. D., Wakefield; L. B. B., London; W.; Y. Y.; R. J., Townhope; H.

Holloway Press, Advocate of India, Northern Echo, Ocean Press, North Star, Cape Argus, European Mail, &c., have been received.

Medical Diary for the ensuing Week.

Monday, June 28.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesdays, same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

Tuesday, June 29.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Wednesday, June 30.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesdays and Thursdays, 1.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department, Tuesdays and Fridays, 9.30 A.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; and on Friday, 2 P.M.; and Saturday, 1 P.M.

Thursday, July 1.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Friday, July 2.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8.30 P.M. Annual General Meeting. Dr. M. J. Symons (Adelaide): Double Symmetrical Corneal Changes.—Mr. W. A. Brailey and Mr. Simeon Snell: Nævus of Choroid with Secondary Glaucoma.—Mr. E. Nettleship: Case of Transverse Calcareous Film of Cornea after Operation.—Mr. W. A. Brailey: Case of Double Glaucoma (Microscopical Specimens).—Mr. W. J. Cant: Paralysis of both Sixth Nerves, with Morbus Brightii.—Mr. W. A. Brailey: (1) Tubercular Iritis; (2) Interstitial Keratitis (? tubercular).

Saturday, July 3.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

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